International Society of Renal Nutrition and Metabolism

ISRNM.ORG

IFKF-WKA - WORLD KIDNEY ALLIANCE

A joint webinar of IFKF-WKA and ISRNM

Title: Eat Smart, Eat Well - World Kidney Recipes Why, What, How

Date: Wednesday, 12th October 2022 (3pm CEST)

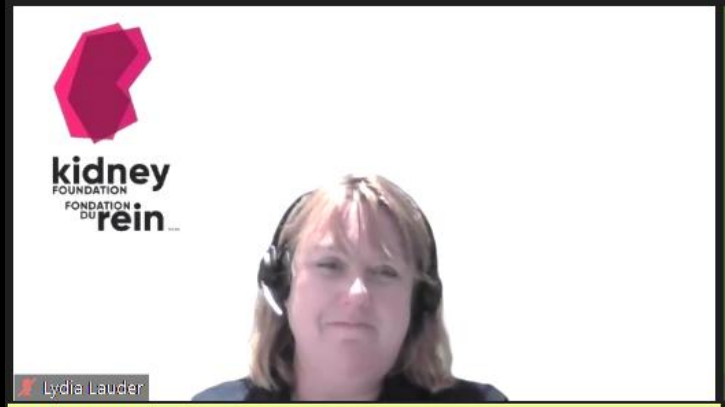
Speakers

Dr Lui Siu Fai
President, IFKF-WKA
Hong Kong SAR

Kelly Lambert, RD, PhD
Academic Program Director,
Nutrition and Dietetics
University of Wollongong, Australia

Lydia Lauder
National Director of Programs and Public Policy,
Kidney Foundation
Canada

Dr. Angela Yee Moon Wang, MD, PhD
President, ISRNM
Hong Kong SAR



12 October 2022
Joint webinar of the International Society of Renal Nutrition and Metabolism
and International Federation of Kidney Foundations - World Kidney Alliance

Living well with Kidney Disease
Eat smart, Eat Well
World Kidney Recipes
Why, What, How

Dr. SF Lui, BBS, MH, JP.
President, IFKF-WKA





IFKF-WKA

In partnership with

ISRNM

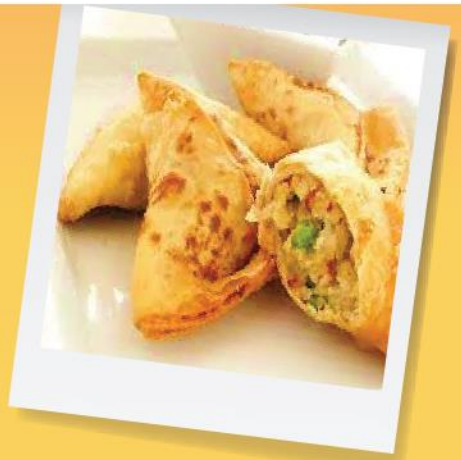
WORLD KIDNEY RECIPES

Eat Smart Eat well

WORLD KIDNEY RECIPES

LONG LIVE KIDNEYS AND PATIENT




ISRNM2022

20TH CONGRESS OF THE INTERNATIONAL SOCIETY OF
RENAL NUTRITION AND METABOLISM

JUNE 16-18 (THU-SAT), 2022
GUANGZHOU, CHINA

HYBRID CONGRESS

Joint ISRNM and International Federation of Kidney Foundation –World Kidney Alliance (IFKF–WKA) Session on World Kidney Recipes

19:45–21:15 (UTC+8), June 16

Moderator:

Angela Wang
Hong Kong, China
President, ISRNM

Siu-Fai Lui
Hong Kong, China
President, IFKF–WKA

TALK 1 Siu-Fai Lui [Hong Kong, China]
World Kidney Recipes – Perspectives and Challenges

TALK 2 Kelly Lambert [Australia] | Academic Program Director, Nutrition and Dietetics, University of Wollongong, Australia
Developing Kidney-Friendly Recipes – Challenges and Opportunities

TALK 2 Lydia Lauder [Canada] | National Director of Programs and Public Policy, The Kidney Foundation of Canada (The Kidney Community Kitchen)
Developing Kidney-Friendly Recipes – Challenges and Opportunities

Panel Discussion

Xueqing Yu
China

Kam Kalantar-Zadeh
United States

Joel D. Kopple
United States

Zarina Ebrahim
South Africa

Manvir Victor
Malaysia

ISRNM2022 20TH CONGRESS OF THE INTERNATIONAL SOCIETY OF *RENAL NUTRITION AND METABOLISM*

Joint webinar of International Society of Renal Nutrition and Metabolism and International Federation of Kidney Foundation -World Kidney Alliance

World Kidney Recipes

JUNE 16-18 (THU-SAT), 2022
GUANGZHOU, CHINA

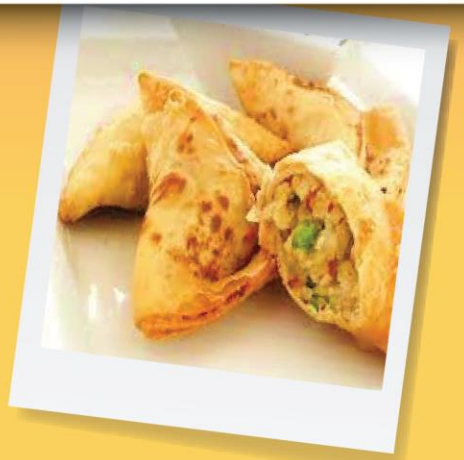




WORLD KIDNEY RECIPES

Why? What? How?



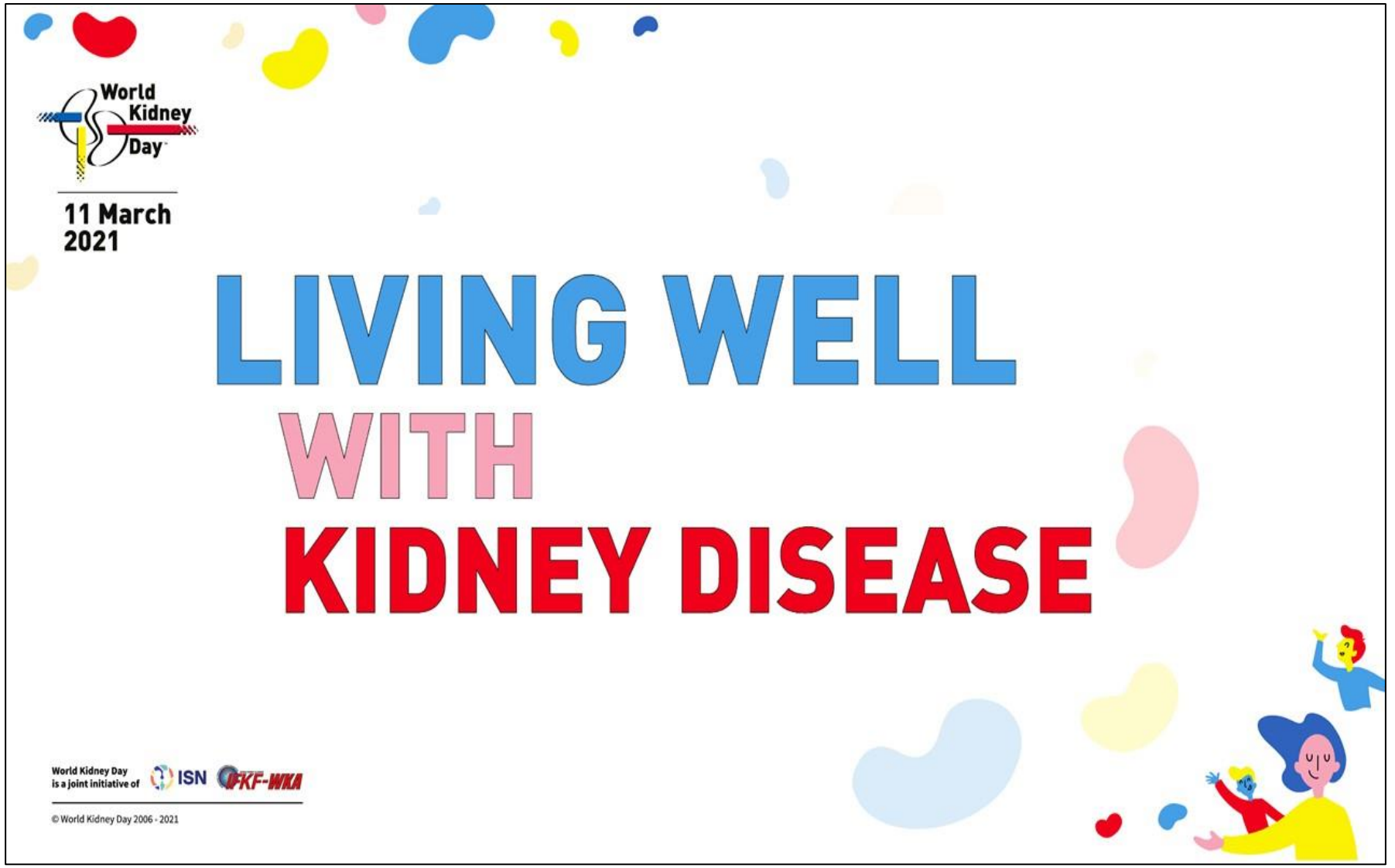

Vision

- Better kidney health for all.
- Optimal care for people affected with kidney disease.

Mission Leading a worldwide movement to

- Promote **better kidney health** with primary, secondary and tertiary preventive measures.
- Promote optimal treatment and care to maximize **the health**, **quality of life**, and **longevity** for people with or at high risk for developing kidney disease.

2021 World Kidney Day theme

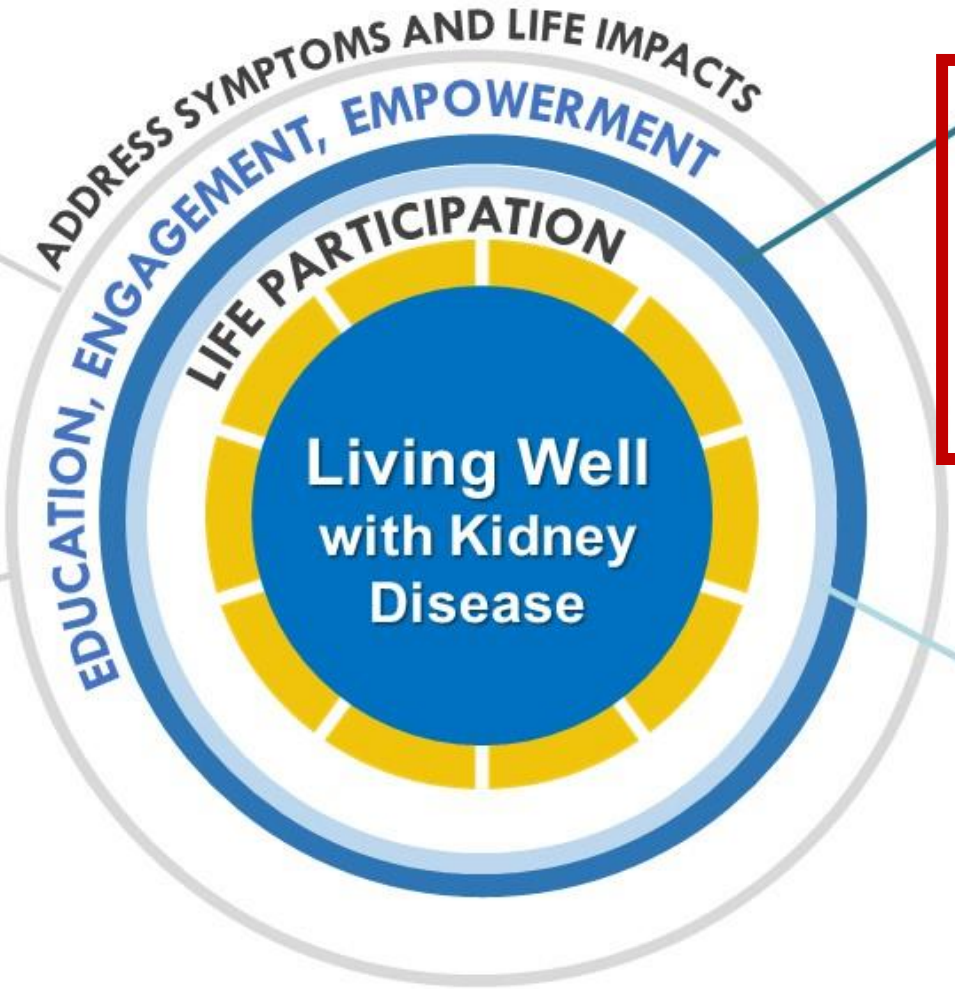


Kidney International (Editorial)
and other 35 worldwide medical journal

Education
Engagement
Empowerment

Symptoms
Fatigue
Mobility
Pain
Stress/anxiety
Depression
Cognitive impairment
Sleep problems
Cramps
Restless legs
Gastrointestinal symptoms

Life impacts
Ability to work
Ability to travel
Ability to study
Impact on family and friends
Financial impact
Dialysis-free time
Dietary restrictions
Lifestyle changes
Social activities



Strengths-based approach
Communication and education
Build resilience
Strengthen social connections
Increase awareness and knowledge
Access to support
Build confidence and control with self-management

Clinical strategies
Preserve kidney function
Patient-friendly lifestyle and diet
Pharmacological management
Delay dialysis start if possible
Incremental transition to dialysis
Patient-centered dialysis prescriptions
Preserve residual kidney function

Figure 1 | Conceptual framework "Living Well with Kidney Disease" based on **patient centeredness** and **empowering patient**, with a focus on **effective symptom management** and **life participation**.

WKD 2021
Pilot study
7 members of IFKF-WKA

Bangladesh
Hungary
Italy
India Tanker Foundation
India Renal Foundation
Hong Kong
Malaysia

Jan – February 2021
N=4807

Living well with kidney disease

Hong Kong Kidney Foundation, Hong Kong Society of Nephrology
And Hong Kong Association of Renal Nurses jointly hosting

A patient survey with a questionnaire

- Are you living well?
- What may be troubling or preventing you from living well?
- What you may do for yourself to live well?
- What you may wish others to do for you to enable you to live well?

The survey can help you to conduct a self evaluation and reflection.

We would like to know how you are doing?
What may be troubling you?
What we can do for you?

Please take 5 minutes to complete the on-line survey

Scan the barcode to go to the on-line survey
or use this link https://cutt.ly/wjpGqn4

I have the following life impact problem/ concern which is affecting me from living well with kidney disease?

Bangladesh		Hungary		Italy		INDIA Tanker Foundation		India Renal Foundation		Hong Kong		Malaysia	
Financial impact	59%	Lifestyle changes	44%	Lifestyle changes	54%	Financial impact	64%	Ability to work	68%	Financial impact	50%	Financial impact	51%
Ability to work	40%	Ability to work	40%	Impact on family and friends	41%	Ability to work	47%	Financial impact	57%	**Diet restriction**	39%	Lifestyle changes	48%
Impact on family and friends	36%	Financial impact	38%	Ability to travel	39%	**Diet restriction**	43%	Lifestyle changes	35%	Impact on family and friends	38%	**Diet restriction**	40%
Lifestyle changes	13%	Ability to travel	35%	Ability to work	36%	Ability to travel	33%	Ability to travel	32%	Ability to work	38%	Social Activities	31%
Social Activities	13%	Impact on family and friends	33%	**Diet restriction**	35%	Lifestyle changes	23%	**Diet restriction**	24%	Ability to travel	35%	Ability to travel	31%

Diet restriction – selected by 5 of the 7 centres worldwide

2022 World Kidney Day theme

ARTICLE IN PRESS

www.kidney-international.org editorial: special report

Kidney International Editorial 2022
Carried by 30 medical journals worldwide

Kidney health for all: bridging the gap in kidney health education and literacy

Robyn G. Langham[1], Kamyar Kalantar-Zadeh[2], Ann Bonner[3], Alessandro Balducci[4], Li-Li Hsiao[5], Latha A. Kumaraswami[6], Paul Laffin[7], Vassilios Liakopoulos[8], Gamal Saadi[9], Ekamol Tantisattamo[2], Ifeoma Ulasi[10] and Siu-Fai Lui[11] for the World Kidney Day Joint Steering Committee[12]

[1]St. Vincent's Hospital, Department of Medicine, University of Melbourne, Melbourne, Victoria, Australia; [2]Division of Nephrology, Hypertension and Kidney Transplantation, Department of Medicine, University of California Irvine, Orange, California, USA; [3]School of Nursing and Midwifery, Griffith University, Southport, Queensland, Australia; [4]Italian Kidney Foundation, Rome, Italy; [5]Brigham and Women's Hospital, Renal Division, Department of Medicine, Boston, Massachusetts, USA; [6]Tamilnad Kidney Research (TANKER) Foundation, The International Federation of Kidney Foundations-World Kidney Alliance (IFKF-WKA), Chennai, India; [7]International Society of Nephrology, Brussels, Belgium; [8]Division of Nephrology and Hypertension, 1st Department of Internal Medicine, AHEPA Hospital, Aristotle University of Thessaloniki, Thessaloniki, Greece; [9]Nephrology Unit, Department of Internal Medicine, Faculty of Medicine, Cairo University, Giza, Egypt; [10]Renal Unit, Department of

Health literacy is the degree to which **persons** and **organizations** have or equitably enable individuals to have the ability to **find, understand, and use** information and services to inform health-related decisions and actions for themselves and others.

Rather than viewing health literacy as a patient deficit, improving health literacy largely rests with health care providers communicating and educating effectively in codesigned partnership with those with kidney disease.

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Kidney organizations should work towards shifting the patient-deficit health literacy narrative **to that of being the responsibility of healthcare providers and health policymakers**.

A pilot survey by IFKF-WKA

Access to healthcare information by the kidney patients

Do you have enough healthcare/ medical information
about your kidneys and kidney disease to care for yourself?

What kind of healthcare/medical information on
(i) kidney and kidney diseases
(ii) treatment of kidney disease/failure
(iii) living well with kidney disease you want to know?

Where you have obtained/ would prefer to obtain the information
on the best healthcare/ medical information on kidney disease and treatment?

Serial No: _____

World Kidney Day
10 March 2022

Bridge the knowledge gap to better kidney care

IFKF-WKA

International Federation of Kidney Foundations - World Kidney Alliance

A WORLD KIDNEY PATIENTS SURVEY

"Access of healthcare information for patients with kidney disease/ kidney failure"

conducted by .....

1 You are (or the carer of)

		Tick one
a	Someone with kidney Disease	
b	Someone with kidney failure (not yet on dialysis)	
c	Someone on peritonieal dialysis	
d	Someone on haemodialysis	
e	Someone with a kidney transplant	

2 Your age — Enter age (in number)

3 Your Education level

		Tick one
a	High school level / Grade 10 or above / Higher education institution	
b	Junior school level / Secondary school / Grade 7-9	
c	Primary school level / Grade 1-6	
d	No formal school education	

4 Do you have enough healthcare/medical information about **your kidneys and kidney disease** to care for yourself? — Please give 1-10 point (1 =not enough, 10 =very adequate)

5 What kind of healthcare/medical information on **kidney and kidney diseases** you want to know?

		Tick one (can be many)
a	About the kidney and kidney function	
b	The common causes of kidney disease and failure	
c	Symptoms of kidney disease	
d	Am I at risk of kidney disease/ kidney failure?	
e	How can I protect my kidneys?	
f	Are my kidneys working OK? (the status of my kidney function)	
g	Other (please list)	

6 What kind of healthcare/medical information on the **treatment of kidney disease/failure** you want to know?

		Tick one (can be many)
a	Treatment of kidney disease	
b	When will I need dialysis (for those with kidney failure)	
c	What are my options for dialysis treatment (for those with kidney failure)	
d	Information on peritoneal dialysis	
e	Information on haemodialysis	
f	Information on kidney transplant	
g	Information on palliative care	
h	Information on complications of kidney disease	
i	Can alternative medicine help me?	
j	Other (please list)	

7 What kind of healthcare/medical information on **living well with kidney disease** you want to know?

		Tick one (can be many)
a	How to live well with kidney disease? (work, daily life, travel)	
b	How to eat well with kidney disease?	
c	How to keep fit with kidney disease?	
d	How to manage psychological stress?	
e	How can I enhance the care for myself?	
f	The social support for patient?	
g	How to reduce the impact on family and friends?	
h	How can I continue or return to work or study?	
i	Other (please list)	

8 List up to three places **where you have obtained** the best healthcare/medical information on kidney disease and kidney treatment — List in order (1=first choice, 2=second choice, 3=third choice)

a	Hospital & clinic (e.g. visit, education class, printed patient education materials)	
b	Print media (e.g open public sources - newspapers, magazine, book, booklets)	
c	Electronic media (e.g. TV, radio)	
d	Social media (e.g. Facebook, YouTube, IG)	
e	Website (reliable, easy to find and access anytime, any where)	
f	Other patients	
g	Other source (please list)	

9 List up to three places **where you would prefer to obtain** the best healthcare/medical information on kidney disease and kidney treatment — List in order (1=first choice, 2=second choice, 3=third choice)

a	Hospital & clinic (e.g. visit, education class, printed patient education materials)	
b	Print media (e.g open public sources - newspapers, magazine, book, booklets)	
c	Electronic media (e.g. TV, radio)	
d	Social media (e.g. Facebook, YouTube, IG)	
e	Website (reliable, easy to find and access anytime, any where)	
f	Other patients	
g	Other source (please list)	

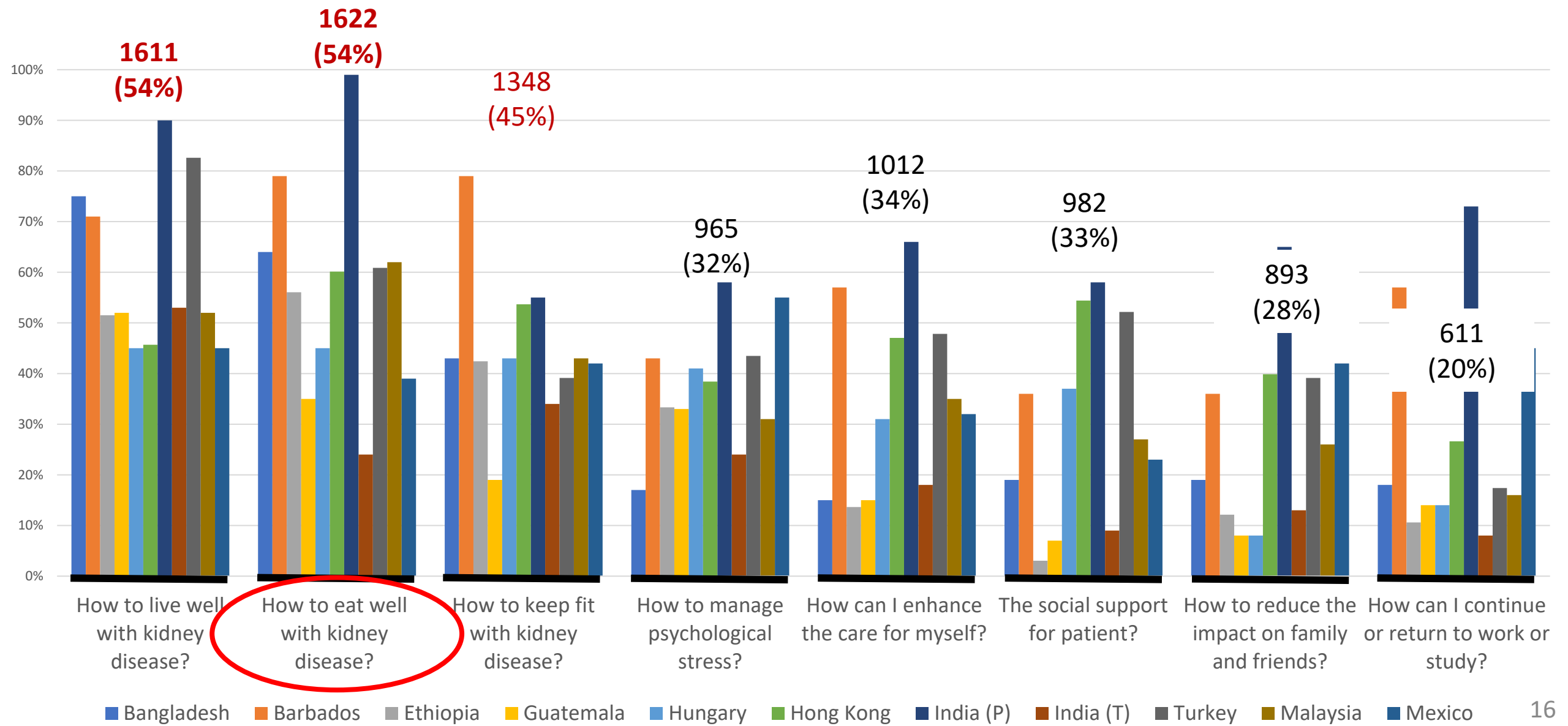
10 Please list any other suggestion

On line and Hard copy

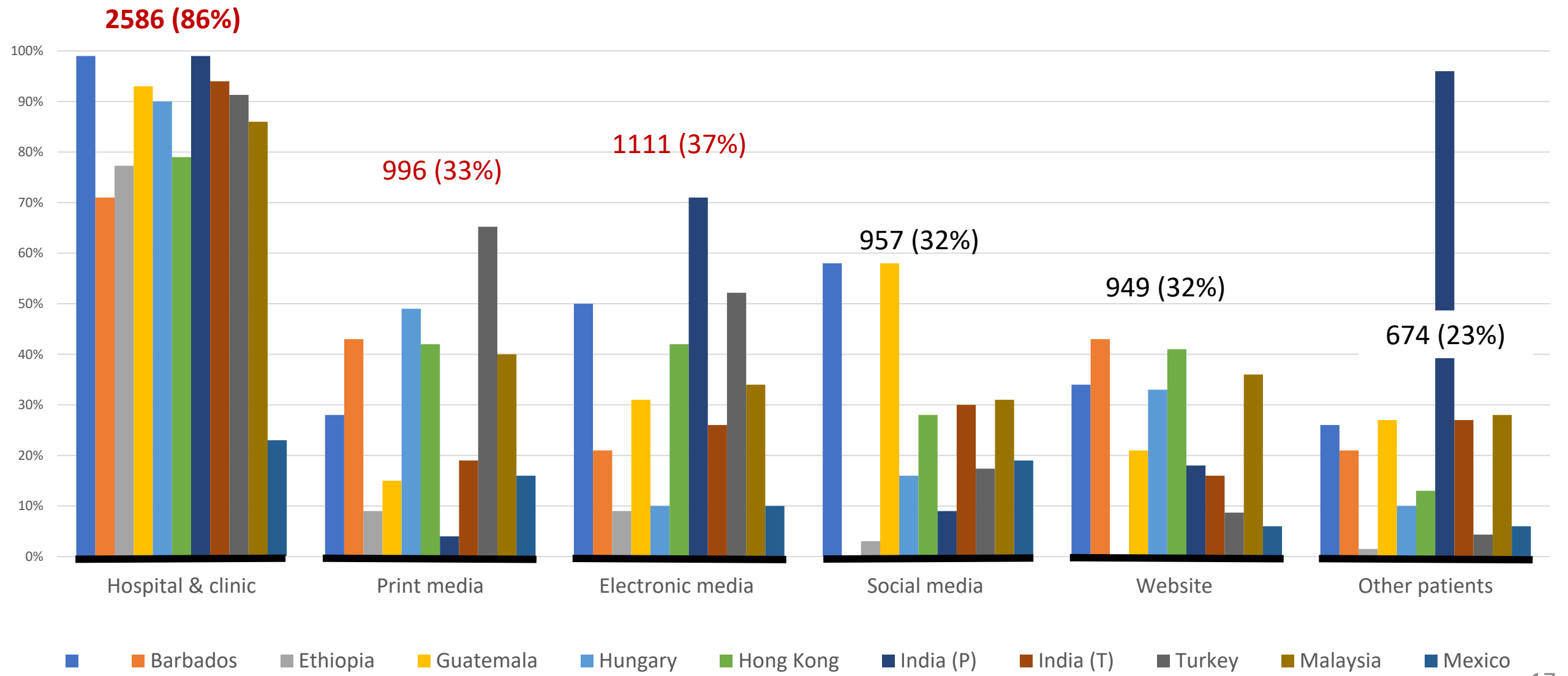
Survey conducted Jan – Feb 2022

	Place	N
1	Bangladesh	350
2	Barbados	14
3	Ethiopia	55
4	Guatemala	91
5	Hungary	51
6	Hong Kong	1090
7	India	633
8	Turkey	23
9	Malaysia	652
10	Mexico	31
	TOTAL	**3001**

What kind of healthcare/medical information on living well with kidney disease you want to know?



List up to three places **where you would prefer to obtain** the best healthcare/medical information on kidney disease and kidney treatment



Way forward

To enable patients and carers to find and understand healthcare information

- Enhance the skill of healthcare professionals to transfer knowledge.
- A more effective and efficient way for healthcare professionals to provide health and healthcare information (mass transfer) via website, webinar

The challenge…

- Patients wish to take control of their illness and life
- Patients wish to live well with the disease

- Patients need healthcare information to do so.
- A need to improve the overall health literacy

in particular, on nutrition, diet and recipes (for kidney patients)

- **Not readily available**

Shortage of renal dietitian

Not able to get, understand and use the information

A “Life” journey with your Kidneys

Stage 2-3	Stage 4	Stage 5	**On renal replacement therapy**
Chronic kidney failure	Chronic kidney failure (pre-dialysis)	End stage kidney failure	- haemodialysis - peritoneal dialysis - transplant

Different dietary information and advice is required for a patient at different time.

A continuum.

Know how to progressively modify/ adapt the diet and recipe

The 5 “rights” of provision of healthcare information

The right **information** (content/ context),

at the right **time** (stage),

by the right **source** (trustworthy, factual),

in the right **format** (understandable),

via the right **channel / platform** (most accessible).

Restrictive renal diet is a barrier to living well

- Can it be less restrictive?
- Can they eat better (well), if they eat smart(er)?
- If so, how to do so?

- Can they get the information?
- Can they understand the information?
- Can they use the information (day to day)?

From diet restriction

→ “Positive” eating

To eat smart, eat well
Bring the joy back into eating

Enjoy recipes from around from world.

KDOQI
KIDNEY DISEASE OUTCOMES QUALITY INITIATIVE
National Kidney Foundation

eat right® Academy of Nutrition and Dietetics

KDOQI CLINICAL PRACTICE GUIDELINE FOR NUTRITION IN CKD: 2020 UPDATE

T. Alp Ikizler, Jerrilynn D. Burrowes, Laura D. Byham-Gray, Katrina L. Campbell, Juan-Jesus Carrero, Winnie Chan, Denis Fouque, Allon N. Friedman, Sana Ghaddar, D. Jordi Goldstein-Fuchs, George A. Kaysen, Joel D. Kopple, Daniel Teta, Angela Yee-Moon Wang, and Lilian Cuppari

Abstract

The National Kidney Foundation's Kidney Disease Outcomes Quality Initiative (KDOQI) has provided evidence-based guidelines for nutrition in kidney diseases since 1999. Since the publication of the first KDOQI nutrition guideline, there has been a great accumulation of new evidence regarding the management of nutritional aspects of kidney disease and sophistication in the guidelines process. The 2020 update to the KDOQI Clinical Practice Guideline for Nutrition in CKD was developed as a joint effort with the Academy of Nutrition and Dietetics (Academy). It provides comprehensive up-to-date information on the understanding and care of patients with chronic kidney disease (CKD), especially in terms of their metabolic and nutritional milieu for the practicing clinician and allied health care workers. The guideline was expanded to include not only patients with end-stage kidney disease or advanced CKD, but also patients with stages 1-5 CKD who are not receiving dialysis and patients with a functional kidney transplant. The updated guideline statements focus on 6 primary areas: nutritional assessment, medical nutrition therapy (MNT), dietary protein and energy intake, nutritional supplementation, micronutrients, and electrolytes. The guidelines primarily cover dietary management rather than all possible nutritional interventions. The evidence data and guideline statements were evaluated using Grading of Recommendations, Assessment, Development and Evaluation (GRADE) criteria. As applicable, each guideline statement is accompanied by rationale/background information, a detailed justification, monitoring and evaluation guidance, implementation considerations, special discussions, and recommendations for future research.

In citing this document, the following format should be used: Ikizler TA, Burrowes JD, Byham-Gray LD, et al; KDOQI Nutrition in CKD Guideline Work Group. KDOQI clinical practice guideline for nutrition in CKD: 2020 update. *Am J Kidney Dis*. 2020;76(3)(suppl 1):S1-S107.

As they are designed to reflect the views and recommendations of the responsible KDOQI Work Group, based on data from an independent evidence review team, and because they undergo both internal and public review, KDOQI guidelines are not peer reviewed by *AJKD*.

The challenge:

How to adopt and apply the guideline?

How to turn it into a day-to-day practice for the patient?

EDITORIAL

The World Kidney Recipes: Teaming up to Empower Patients, Care-Partners, Dietitians, and Chefs With Culinary Creativity and Multicultural Diversity in Renal Nutrition and Dietetics

Check for updates

Kamyar Kalantar-Zadeh, Angela Wang, Linda Moore, SF Lui

IN A PARADIGM-SHIFTING effort to empower renal nutrition communities with infinite kidney advocacy possibilities across cultures and boundaries throughout the world, the *International Federation of Kidney Foundation–World Kidney Alliance* (IFKF-WKA) and the *International Society of Renal Nutrition and Metabolism* (ISRNM) have teamed up and embarked on the World Kidney Recipes project. The main goal is to galvanize patients and their care partners to work with gastronomic experts and dietetic professionals, including chefs and dietitians, to inspire creativity in culinary medicine and medical nutrition therapy in kidney care.[1,2] Additionally, advancing the concept of the World Kidney Recipes is expected to enforce multicultural diversity in renal nutrition and kidney dietetics so that these efforts can evolve into appealing experiences for all persons and providers engaged in care for patients with chronic kidney disease (CKD) in any stage and severity.[3,4]

Activities under the World Kidney Recipes can entail three separate but interconnected components: (1) Engage kidney healthcare professionals and kidney advocacy organizations, including kidney foundations and nephrology societies in the art and science of culinary medicine, so that barriers and gaps along with opportunities for partnership and collaboration can be identified, in an effort to become better familiarized with and appreciate the field of applied renal nutrition in support for patients with kidney disease under real-world scenarios.[5] (2) Encourage kidney patients and their family members to overcome the constraints of the often imposed dietary restrictions by embracing diversity in multicultural recipes and joy in cooking and choice of food, aligned with the 2021 World Kidney Day's theme of "living well with kidney disease,"[6] and (3) Enforce patients' and care partners' education, engagement and empower-

Financial Disclosure: The authors declare that they have no relevant financial interests.

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https://doi.org/10.1053/j.jrn.2021.08.007

Journal of Renal Nutrition, Vol 31, No 6 (November), 2021: pp 545-549

A PARADIGM-SHIFTING effort to empower renal nutrition communities with infinite kidney advocacy possibilities across cultures and boundaries throughout the world, IFKF-WKA and ISRNM have teamed up and embarked on the World Kidney Recipes project.

The main goal is to galvanize patients and their care partners to work with gastronomic experts and dietetic professionals, including chefs and dietitians, to inspire creativity in culinary medicine and medical nutrition therapy in kidney care.

Nutrition → Diet → Recipes

for patients with kidney disease

Perspectives

Challenges

Kidney Nutrition, Diet and Recipes

Perspectives

Medical doctor / nurses	• Provide the best care for the patient including nutrition aspect
Dietitians	• Assist patient to understand nutrition, explore diet option, use recipes
Patient / carer	• How can I protect (with an appropriate diet) - my kidneys - my life (general health) • To live well

Kidney Nutrition, Diet and Recipes

Challenges

Medical doctor /nurse	• Knowledge (inadequate) • Time (may not be the top priority)
Dietitians	• Time • Manpower
Patient / carer	• **Patient's health literacy** Able to get, understand and use information.
Insitutation Organization	• **Organizational Health Literacy** To provide information that users can get and understand.





WORLD KIDNEY RECIPES

Why? What? How?





Joint Steering Committee of International Federation of Kidney Foundations – World Kidney Alliance and International Society of Renal Nutrition and Metabolism on Renal nutrition, Diet and World Kidney Recipes

Joint Steering Committee of World Kidney Nutrition, Diet and Recipes

First JSC meeting 30th July 2021 via Zoom

IFKF-WKA

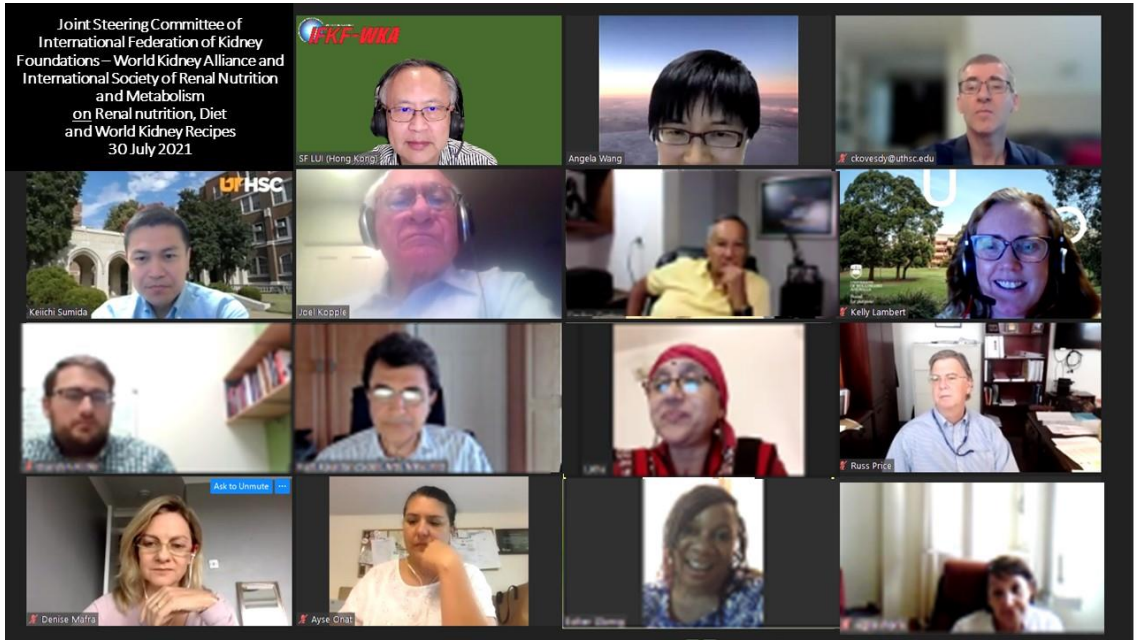
SF Lui (Hong Kong) Co-Convenor
Kam Kalantar (US)
Ágnes Haris (Hungarian Kidney Foundation)
Carlos Castro (ALE, IAP/FEMETRE, Mexico)
Joel Kopple (US)
Latha Kumaraswami(India Tanker Foundation)
Esther Obeng (Ghana Kidney Foundation)
Ayşe Onat (Turkey Kidney Foundation)

ISRNM

Angela Wang (Hong Kong) Co-Convenor
Russ Price (US)
Anna Laura Fantuzzi (*Dietitian – Italy)
Brandon Kistler (*Dietitian – US)
Csaba Kovesdy (US)
Kelly Lambert (*Dietitian - Australia)
Denise Mafra (*Dietitian - Brazil)
Keiichi Sumida

World Kidney Recipes Working group

SF Lui, Angela Wang
Maria Chan, Zarina Ebrahim
Sylvia Lam, Kelly Lambert
Kam Kalantar, Joel Kopple



2021 July
IFKF-WKA & ISRNM Joint Project

(1) Health literacy on Kidney Nutrition & Diet

Healthcare professional
Organizations (foundation)
Patient group / patient and carer
and the general public

(2) World Kidney Recipes

Inaugural Joint Webinar of ISRNM and IFKF-KWA
4 May 2022

Pros and Cons of Plant-based Diet for Chronic Kidney Disease

https://www.youtube.com/watch?v=TFN7nCXsV3g

Inaugural Joint Webinar of ISRNM and International Federation of Kidney Foundation-World Kidney Alliance (IFKF-WKA)

Title: Pros and cons of plant based diet chronic kidney disease (Live debate)

Date: 4 May 2022 (3PM CEST)

Duration	Up to 60 minutes

Opening remarks (5 mins)

Dr. Angela Yee Moon Wang, MD, PhD
President, ISRNM
Hong Kong SAR

Dr Lui Siu Fai
President, IFKF-WKA
Hong Kong SAR

Moderators

Angeles Espinoza
Dietitian
Mexico

Kam Kalantar-Zadeh
Nephrologist
USA

Speakers

Giorgina Piccoli
Italy
Pros side

Joel Kopple
USA
Cons side

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Collections of international recipes

ISRNM

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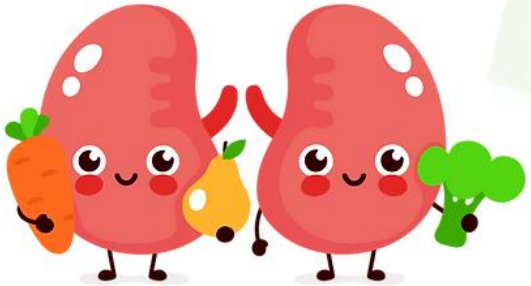
ibership | Patients' Corner

MET

Kidney-Friendly Recipes from Around the World

Diet and Nutrition are essential for healthy eating and living in people living with chronic kidney disease. In this section, you can find useful resources of kidney-friendly recipes and cooking tips from around the world. We welcome you to share your recipes and cooking tips for a healthy kidney diet, as well as your comments. Feel free to email your recipes to us, we may post it up in our blog posts!

Please work with your dietitian on how to use these recipes for your personalized eating plan.



Kidney-Friendly Recipes

Sponsored Recipes

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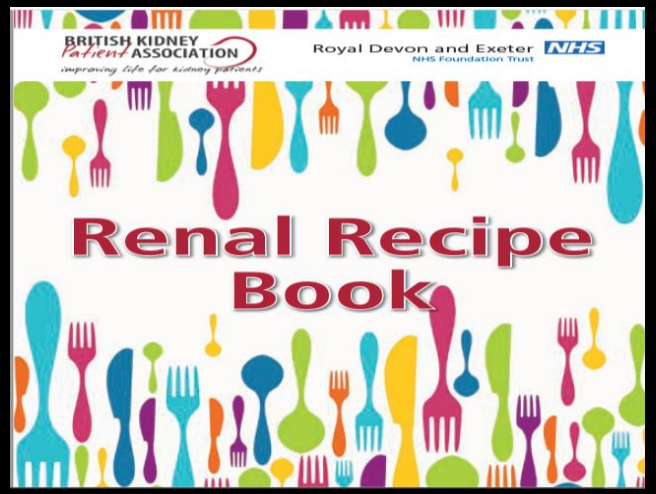
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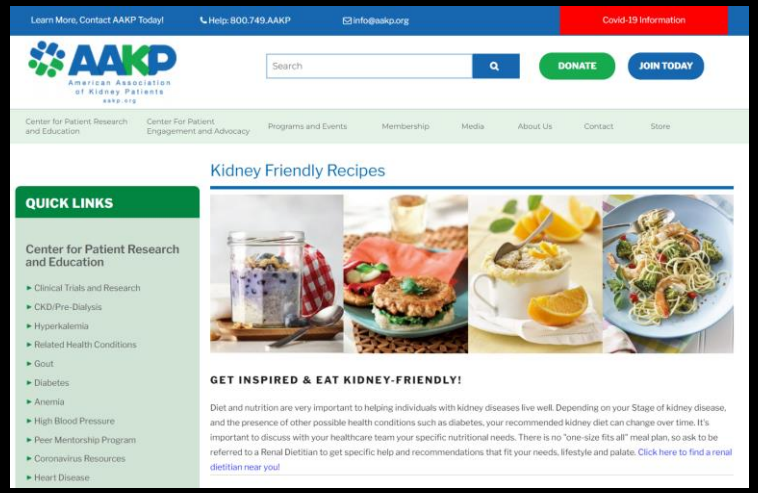
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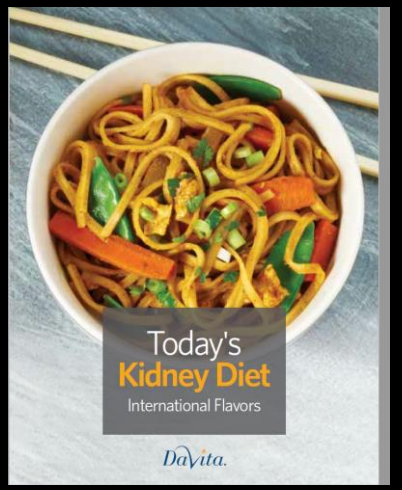
GET INSPIRED & EAT KIDNEY-FRIENDLY!
Diet and nutrition are very important to helping individuals with kidney diseases live well. Depending on your Stage of kidney disease, and the presence of other possible health conditions such as diabetes, your recommended kidney diet can change over time. It's important to discuss with your healthcare team your specific nutritional needs. There is no "one-size fits all" meal plan, so ask to be referred to a Renal Dietitian to get specific help and recommendations that fit your needs, lifestyle and palate. Click here to find a renal dietitian near you!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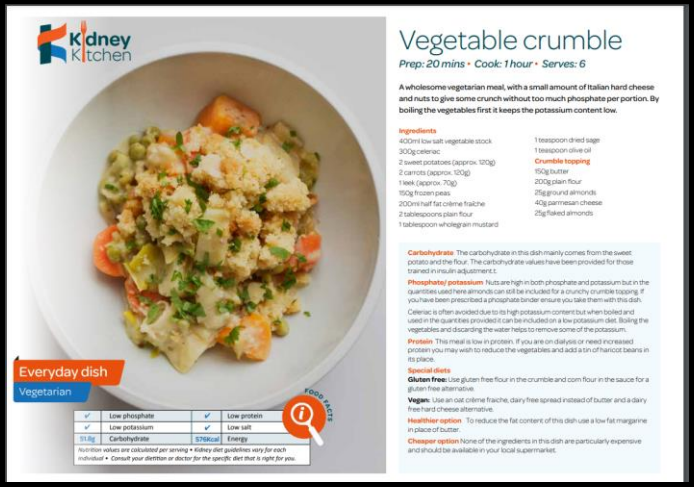
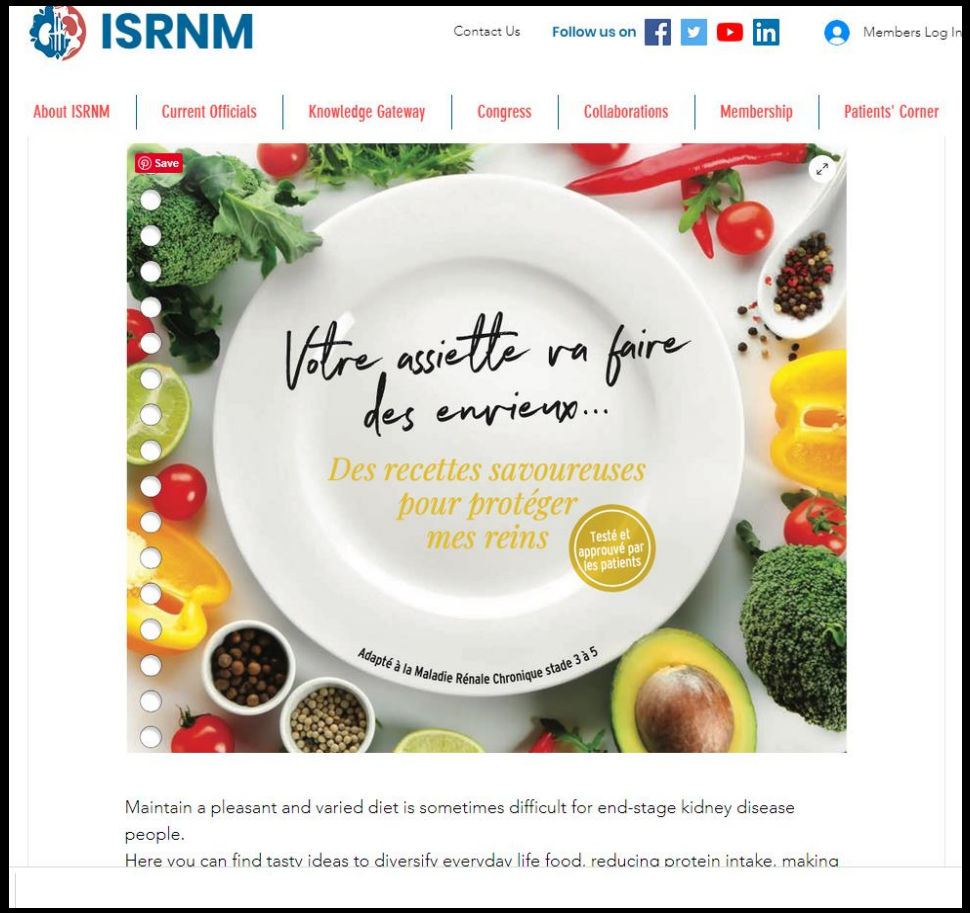

Kidney Kitchen
Vegetable crumble
Prep: 20 mins • Cook: 1 hour • Serves: 6
A wholesome vegetarian meal, with a small amount of Italian hard cheese and nuts to give some crunch without too much phosphate per portion. By boiling the vegetables first it keeps the potassium content low.
Ingredients
Everyday dish
Vegetarian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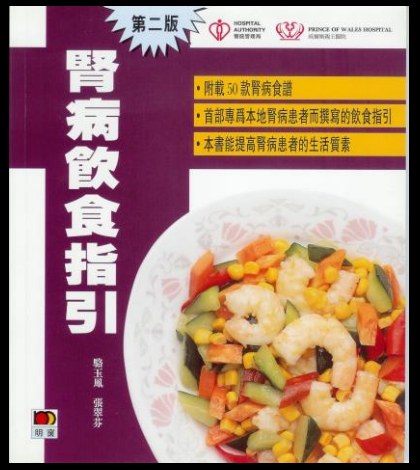
Des recettes savoureuses pour protéger mes reins
Testé et approuvé par les patients
Adapté à la Maladie Rénale Chronique stade 3 à 5
Maintain a pleasant and varied diet is sometimes difficult for end-stage kidney disease people.
Here you can find tasty ideas to diversify everyday life food, reducing protein intake, making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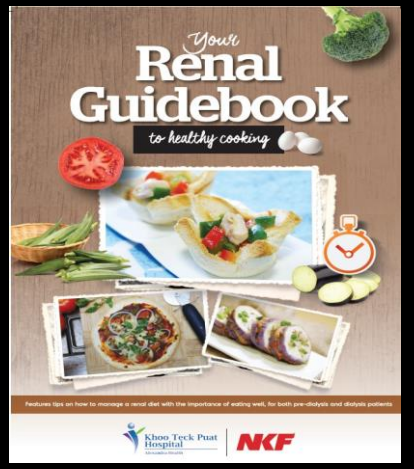
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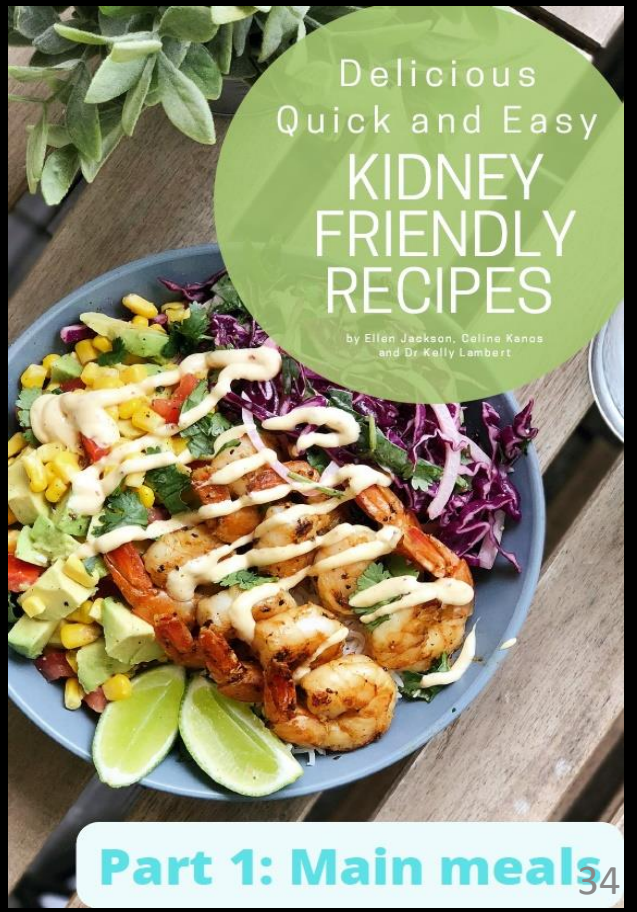

Delicious
Quick and Easy
KIDNEY FRIENDLY RECIPES
by Ellen Jackson, Celine Kanos and Dr Kelly Lambert
Part 1: Main meals

Prerequisite to use the recipes

- **Basic knowledge of nutrition and diet for kidney disease**
- **Aware of one's own condition**
  - physical (BMI, nutrition status),
  - biochemistry (renal function, protein/albumin, electrolytes, sugar, lipids)
  - stage of kidney failure
  - mode of renal replacement therapy
- **Is given dietary advice/prescription (daily allowance)** to follow
  - Caloric
  - Protein (exchanges)
  - Carbohydrates (exchanges)
  - Fat (if a need to focus on)
  - Sodium, potassium, phosphorus (if a need to focus on)

WORLD KIDNEY RECIPES

- **Home cooking**
- **Family meals** (not just cooking for one person)
- **Kidney and health-friendly food**

- **Co-design, co-produce**
with patients and healthcare professionals

- Simple, easy recipes to understand and use
- Tips on how to eat smart and eat well

- **Use of exchanges (protein, carbohydrates)**
- **Use of indicators (low/high level)**

WORLD KIDNEY RECIPES

The recipe is a guide (options)

<u>how</u> to select and prepare your food,

according to your prescribed allowance

to set up your meal plan for the day/week.

WORLD KIDNEY RECIPES

The recipe is "generic"

which can be modified

to meet the allowance/meal plan of the patient by

- varying the **protein** content (portion size to be consumed)
- be mindful of the **caloric** content and adjust accordingly
- be mindful of the **carbohydrate** content (if diabetic)
- if necessary, focus on and modify the **ingredients**

with **sodium, potassium, and phosphorous** content.

May not necessary to have a different recipe
for different stages of kidney failure, or renal replacement therapy.
A recipe can be modified accordingly (with tips).

WORLD KIDNEY RECIPES

The recipe is a guide
on the protein, sodium, potassium,
and phosphorous content
of one serving of the meal.

The indicator "Low" or "High"
is only a relative indicator (not absolute),
must be considered **in the context of**
- the patient's condition (body weight, biochemistry),
- stage of kidney failure
- on which type of renal replacement therapy
- meal plan for the day/week.

WORLD KIDNEY RECIPES

TIPS

(Help them to fish, rather than give them the fish)

- **How to modify the recipe**

(ingredient of different levels of nutrient requirement)

- **Cooking skill**

Grill, roast, steam, fry
Slow cooking, Air-fried
Use of herbs and seasoning (without salt)

KEEP IT SIMPLE, UNDERSTANDABLE, PRACTICAL

How to present recipes
that can be understood and used

Currently, many recipe book / information provided

- Indication of the nutrient level **high / low**
- **Actual value** may also be provided
- Use of "**exchanges**" for protein, carbohydrates
- **Tips** on how to use the recipe

This is organizational health literacy

How to present recipes
that can be understood and used

Nutrition content per serving

Serving size: 300 g		% Daily Value
Calories (kcal)	400	20%
Carbohydrate (g)	47	16%
Protein (g)	27	
Fat (g)	12	18%
Cholesterol (mg)	125	42%
Fiber (g)	4	16%
Sodium (mg)	370	17%
Potassium (mg)	368	
Phosphate (mg)	160	

* Based on 2,000 kcal diet per day

Salt and Sodium

Confusing terminology!!!!!!

- **5g of salt 2000 mg (sodium)**
- **a teaspoon of salt (Sodium choloride)**

2300 mg sodium

100 mmol of sodium

5.8 gm (5800 mg) of salt

Can patients understand and use the information (numbers)?

Does a patient add up the actual values for a day's intake?

SHRIMP AND GRITS

IMAGE BY MARIA SPINELLI

TOTAL TIME: 30 MINUTES **SERVINGS**: 4 **YIELD**: 6 CUPS

SERVING SIZE: 3-4 SHRIMP PLUS 1 CUP COOKED GRITS

Grits is a staple recipe in the southern parts of the United States where corn was native to the region. The corn in ground and then boiled, most often in milk, with butter and other flavors added. It started as a popular breakfast food but now has many different variations as cooks and chefs have used its versatility in many dishes.

In this recipe we are going to use chicken stock infused with the shells of the shrimp, and then sauté the shrimp in a spicy chili paste. This removes the high phosphorus milk and adds a big boost of flavor with healthier food items for patients with kidney problems.

Ingredients

- 1 cup hominy grits or corn grits
- 3 cups chicken broth
- 1 cup water
- 1 pound deveined shell-on wild caught shrimp fresh or frozen (any size will do but I prefer jumbo (15 - 16 pieces per pound)
- 6 ounces of chili paste-homemade preferred
- 1 cup freshly ground Parmigiano Reggiano cheese using a microplane, or 1/4 cup (about 1 ounce)
- 1/2 tablespoon olive oil
- 1 tablespoon butter
- 1/2 teaspoon salt
- 1/2 teaspoon black pepper

One of the benefits in the new dietary guidelines for kidney patients is the expansion of food items that are deemed acceptable. This is based on the absorption rates of organic phosphorus. Organic phosphorus is phosphorus found naturally in foods, while inorganic is added to food as a preservative, color enhancer, and shelf stabilizer. They are chemical items usually starting with "phos-" in the ingredient list.

The new guidelines use a 40% absorption of the organic phosphorus for most vegetables and a 60% absorption rate for animal phosphorus. This is shown in the charts below in the last lines of the ingredient list.

Nutriention Facts

		Fat	Sat. Fat g	Phos mg	Pot mg	Sodium mg	Calories	Carbs g	Vit A iu	Vit C mg	Vit K Mcg	Vit E mg AT	Vit B6 mg
		65	22	700	3300	2300	2000	275	5000	60	120	20	60
Ingredients	**Amt**												
Hominy Grits	1 C	2.4 3.69%	.4 1.82%	264 37.71%	240 7.27%	3.2 0.14%	568 28.40%	130 47.27%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	.4 .67%
Chili Sauce	1/4 C	1.23 1.89%	.6 0.0%	25.65 3.66%	205.98 6.24%	72.99 3.17%	49.50 2.48%	8.00 2.91%	1959.33 39.19%	11.40 64.80%	9.04 7.54%	.46 2.31%	.33 0.55%
Parmigiano Reggiano	1 oz 1/2 C	7 10.77%	5 22.73%	172 24.57%	13.2 .40%	428 18.61%	121 6.05%	1 .36%	112 2.24%	0 0.0%	0 0.0%	1.2 6.00%	0 0.0%
Olive Oil	1 Tbsp	13.5 20.77%	1.875 8.52%	0 0.0%	0.27 0.01%	0 0.0%	119.4 5.97%	0 0.0%	0 0.0%	0 0.0%	8.1 6.75%	2 10.0%	0 0.0%
Butter	1 Tbsp	11 16.92%	7 31.82%	3.4 .49%	3.4 .10%	2 .09%	100 5.00%	0 0.0%	350 7.0%	0 0.0%	1 .83%	.3 1.50%	0 0.0%
Shrimp deveined	1 lb.	8.0 12.31%	1.60 7.27%	918.40 131.20%	828.80 ###	662.40 28.80%	475.20 23.76%	4.80 1.75%	806.40 16.13%	9.60 16.00%	0 0.0%	4.8 24.00%	0 0.0%
Pepper	1/4 tsp	0 0.0%	0 0.0%	0.8 0.11%	6.3 0.19%	0 0.0%	1.2 0.06%	0.25 0.09%	1.5 0.03%	0.1 0.17%	0.8 0.67%	0 0.0%	0 0.0%
Low Salt Chicken Stock	4 C	7.60 11.69%	3.20 14.55%	100.80 14.40%	816.0 ###	664.0 28.8%	345.60 17.28%	34.0 12.56%	28.80 0.58%	2.0 3.33%	2.0 1.67%	.40 2.0%	.40 0.67%
Total for Dish		50.73 78.04%	19.14 86.99%	1485.05 212.15%	### ###	1832.59 79.68%	1779.90 89.0%	178.05 64.75%	3258.03 65.16%	23.10 38.50%	20.94 17.45%	9.16 45.81%	1.13 1.89%
# of Servings		5	5	5	5	5	5	5	5	5	5	5	5
Total per Servings		10.15 15.61%	3.83 17.40%	297.01 42.43%	422.79 ###	366.52 15.94%	355.98 17.80%	35.61 12.95%	651.61 13.03%	4.62 7.70%	4.19 3.49%	1.83 9.16%	0.23 0.38%
Adjusted for Absorption	830.58	10.15 15.61%	3.83 17.40%	166.59 23.80%	422.79 ###	366.52 15.94%	355.98 17.80%	35.61 12.95%	651.61 13.03%	4.62 7.70%	4.19 3.49%	1.83 9.16%	0.23 0.38%

Amino Acid Chart

	Mg needed per gram of Protein	Grits	Recipe 14g	Chili Sauce	Recipe 1.64g	Parm. Regg.	Recipe 10g	Butter	Recipe .1g	Chicken Stock	Recipe 24g	Shrimp	Recipe 94.05g	Total Amino Acids	Total Protein/g
Essential Amino Acids		Protein/g	Recipe	Protein/g	Recipe	Protein/g	Recipe	Protein/g	Recipe	Protein/g	Recipe	Protein/g	Recipe		
Histidine	18		0.0	15.12	24.79	38.7	387	27.47	2.75		0.0	20.29	####	2322.72	16.15
Isoleucline	25		0.0	25.11	37.89	55.00	550.00	61.05	6.11		0.0	48.58	####	5124.28	35.64
Methionine	25		0.0	8.42	13.81	26.80	268.0	25.11	2.51		0.0	27.05	####	2825.57	19.67
Leucine	55		0.0	37.56	61.60	96.70	967.0	98.95	9.89		0.0	79.19	####	8486.58	59.02
Lysine	51		0.0	33.30	54.60	92.58	925.84	80.00	8.00		0.0	86.88	####	9159.38	63.70
Phenylalanine	47		0.0	22.92	37.59	53.80	538.0	49.0	4.90		0.0	42.72	####	4598.0	31.98
Threonine	27		0.0	26.15	42.89	36.90	369.0	45.42	4.54		0.0	40.40	####	4216.48	29.32
Tryptophan	7		0.0	9.63	15.79	13.50	135.0	14.32	1.43		0.0	13.93	####	1462.40	10.17
Valine	32		0.0	30.21	49.55	68.70	687.00	67.89	6.79		0.0	46.99	####	5165.15	35.91

Amt. per recipe	5 Each		4 Tbsp		1 oz		1 Tbsp		4 Cups		1 lb
Prot. per recipe	14		1.64		10		0.1		24		94.05

Tot. Protein (g)	143.79
# of servings	8
Prot./serving (g)	17.97

Old Fashioned Canadian Stew

Diet Type High Protein | Low Phosphorus | Low Potassium
Meal Type Beef | Family Friendly | Soups & stews

Adapted from https://www.ricardocuisine.com

Photo by Melanie Liu

Here's a low potassium version of the classic Canadian stew.

Ingredients

- 1 slice 1.10 lbs (500 g) boneless beef blade, fat removed
- 2 tablespoons (30 ml) olive oil
- 1 cup onion, sliced
- 6 cloves garlic, peeled
- 1 tablespoon (15 ml) whole-grain mustard
- 2 cups turnip, cubed
- 1 cup carrots, sliced
- 4 cups cabbage, shredded
- 4 cups low sodium chicken or beef broth

Directions

In a skillet, brown the meat on both sides in the oil. Place in the slow cooker. Set aside.

In the same skillet, brown the onion and garlic.

Deglaze with 1 cup low sodium chicken or beef broth and add the mustard. Pour into the slow cooker and add the remaining ingredients.

Cover and cook on low for about 8 hours or until the meat is fork-tender. Adjust the seasoning.

Nutrient Analysis

Calories: 185 KCal
Protein: 17 g
Carbohydrates: 11 g
Fibre: 2.3 g
Total Fat: 8.7 g
Sodium: 153 mg
Phosphorus: 184 mg
Potassium: 542 mg

Renal Diet Nutrient Analysis

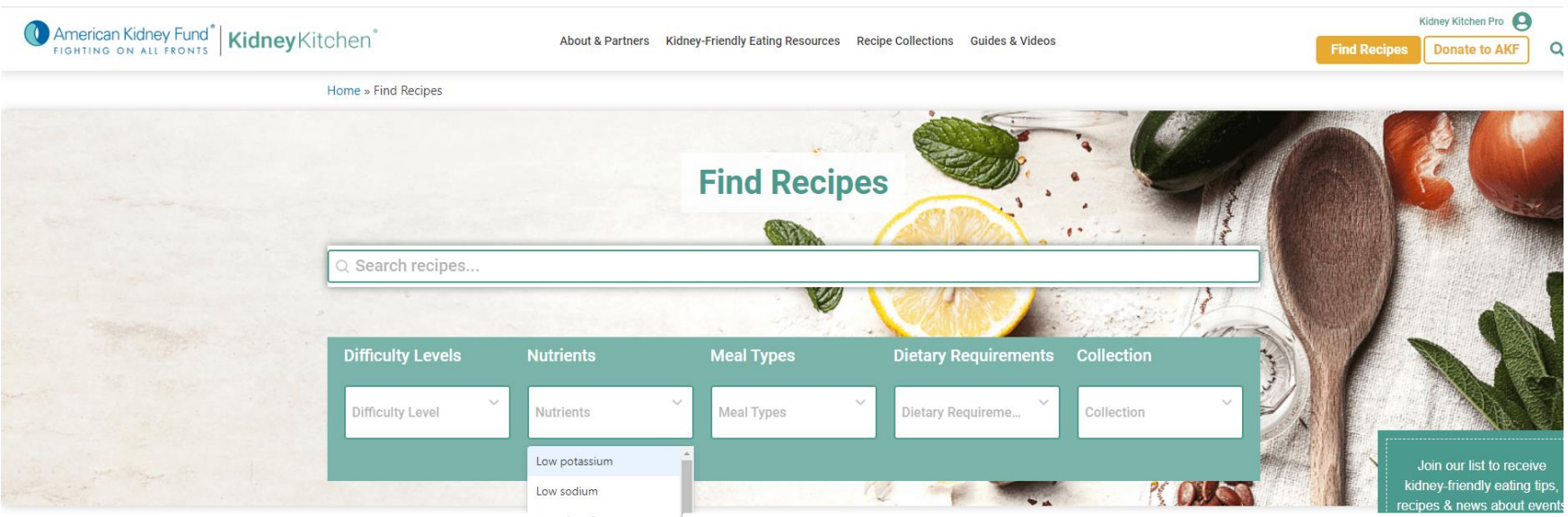
Servings per recipe: 8
Serving size: 1 1/4 cup

Renal and Diabetic Exchanges

2 protein, 2 vegetables

What is one exchange?

1 Protein Choice = 1oz of meat or 7g of dietary protein
1 Starch Choice = about 15g of carbohydrates
1 Fruit or Vegetable Choice = ½ cup
1 Milk Choice = ½ cup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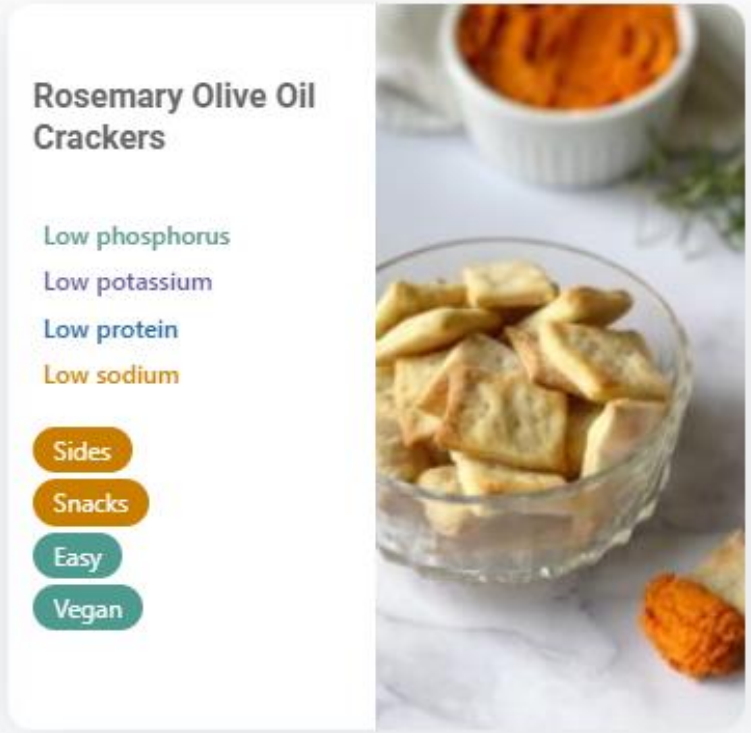
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Low protein
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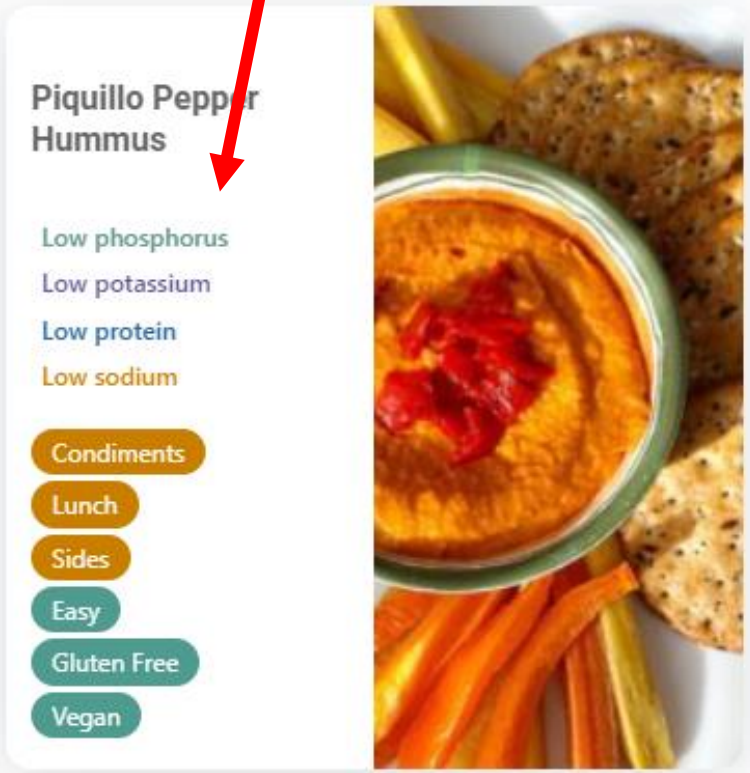
Sides
Snacks
Easy
Vegan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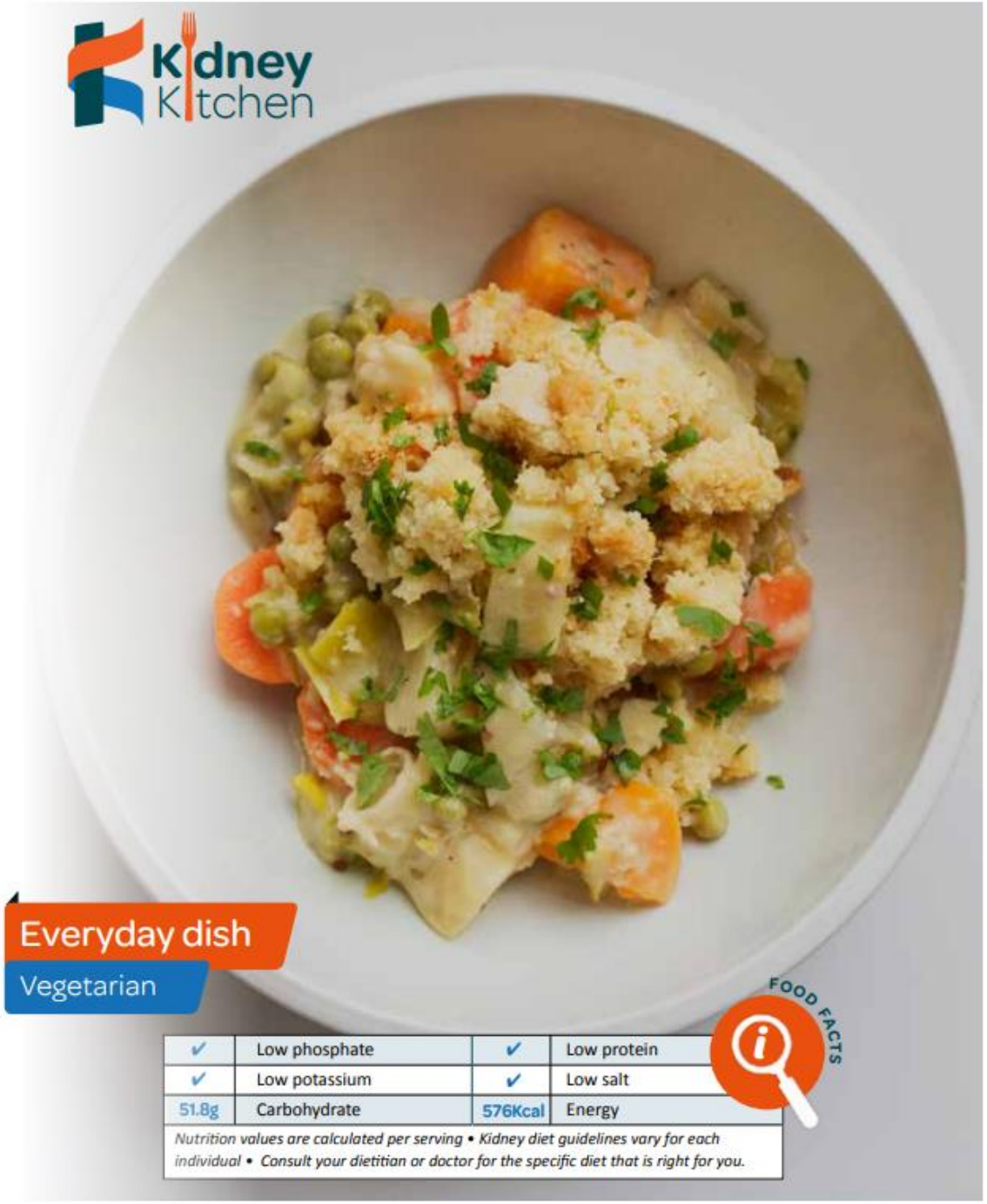
Low phosphorus
Low potassium
Low protein
Low sodium
Condiments
Lunch
Sides
Easy
Gluten Free
Vegan

Kidney Kitchen



Everyday dish

Vegetarian

✔	Low phosphate	✔	Low protein
✔	Low potassium	✔	Low salt
51.8g	Carbohydrate	576Kcal	Energy

Nutrition values are calculated per serving • Kidney diet guidelines vary for each individual • Consult your dietitian or doctor for the specific diet that is right for you.

FOOD FACTS

Vegetable crumble

Prep: 20 mins • Cook: 1 hour • Serves: 6

A wholesome vegetarian meal, with a small amount of Italian hard cheese and nuts to give some crunch without too much phosphate per portion. By boiling the vegetables first it keeps the potassium content low.

Ingredients

400ml low salt vegetable stock
300g celeriac
2 sweet potatoes (approx. 120g)
2 carrots (approx. 120g)
1 leek (approx. 70g)
150g frozen peas
200ml half fat crème fraîche
2 tablespoons plain flour
1 tablespoon wholegrain mustard
1 teaspoon dried sage
1 teaspoon olive oil

Crumble topping

150g butter
200g plain flour
25g ground almonds
40g parmesan cheese
25g flaked almonds

Carbohydrate The carbohydrate in this dish mainly comes from the sweet potato and the flour. The carbohydrate values have been provided for those trained in insulin adjustment.t.

Phosphate/ potassium Nuts are high in both phosphate and potassium but in the quantities used here almonds can still be included for a crunchy crumble topping. If you have been prescribed a phosphate binder ensure you take them with this dish.

Celeriac is often avoided due to its high potassium content but when boiled and used in the quantities provided it can be included on a low potassium diet. Boiling the vegetables and discarding the water helps to remove some of the potassium.

Protein This meal is low in protein. If you are on dialysis or need increased protein you may wish to reduce the vegetables and add a tin of haricot beans in its place.

Special diets

Gluten free: Use gluten free flour in the crumble and corn flour in the sauce for a gluten free alternative.

Vegan: Use an oat crème fraiche, dairy free spread instead of butter and a dairy free hard cheese alternative.

Healthier option To reduce the fat content of this dish use a low fat margarine in place of butter.

Cheaper option None of the ingredients in this dish are particularly expensive and should be available in your local supermarket.

Eggplant and sweet potato curry

Ingredients:

4
Serves

- 2 medium onions, peeled and sliced
- 1 medium eggplant, chopped into 2cm pieces
- 1 medium sweet potato
- 350g of Korma Curry Sauce (Mild)
- 4 serves of white rice

Instructions:

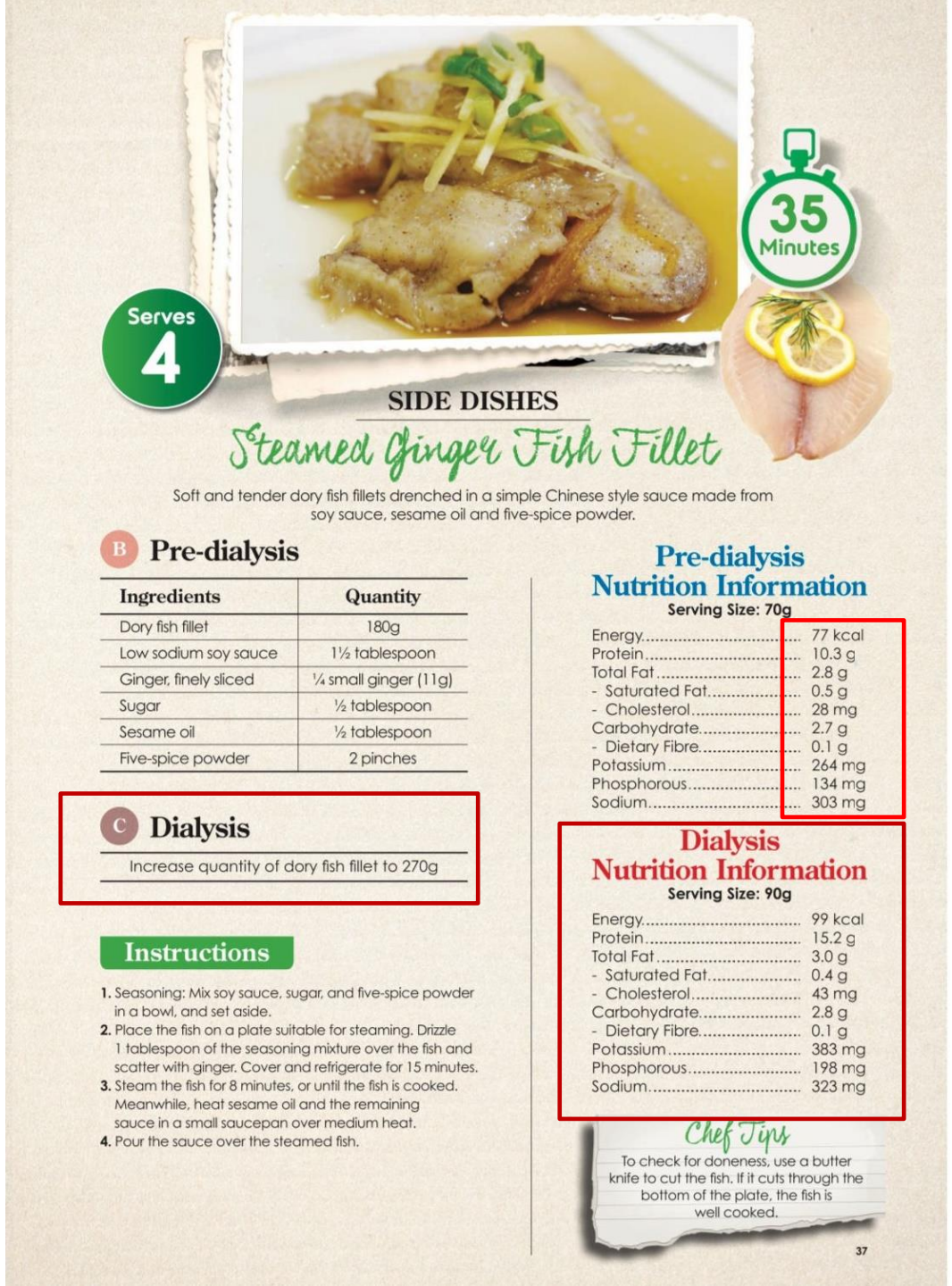
1. Simmer onion in a little water for just a minute
2. Remove from pan and set aside
3. In a non stick frying pan, fry eggplant until evenly browned
4. Add onions and sweet potato to pan with sweet potato and korma sauce
5. Fill half the empty jar with water and add to pan.
6. Simmer for 20-30minutes until the potato and eggplant are tender
7. Serve with rice and pappadums.

Nutrient Values Per Serve:

Protein (total): **7g**
Protein rich food exchange: **0**
Carbohydrate: **57g**
Carbohydrate Exchange: **4**
Sodium: **467mg**
Potassium: **641mg**
Phosphate: **147mg**

Suitable for:

- ✓ Low sodium
- ✓ Low phosphorous
- ✓ Low potassium
- ✓ Low protein
- ✓ Diabetic diet



A recipe with tips to modify the protein content

for
Pre-dialysis
to
on Dialysis

Criteria of High/Low

A wide variation in the criteria used by different recipe books for different settings.

No international standard

Kidney Community Kitchen Tagging Guidelines

Tagging diet type is "easiest" using renal diet exchanges to calculate whether or not something qualifies e.g. as low sodium.

Food Group	Nutrient Breakdown					
	Protein (g)	Fat (g)	Carbohydrates (g)	Potassium (mg)	Phosphorus (mg)	Sodium (mg)
Protein choice	7	4	0	100	70	25
Starch Choice	2	0	15	40	50	80
Milk Choice	4	variable	6	195	125	80
Fruit Choice	0.5	0	10	200-240	15	0
Vegetable Choice	2	0	6	200-240	30	15

1 Protein Choice = 1oz of meat or 7g of dietary protein
1 Starch Choice = about 15g of carbohydrates
1 Fruit or Vegetable Choice = ½ cup
1 Milk Choice = ½ cup

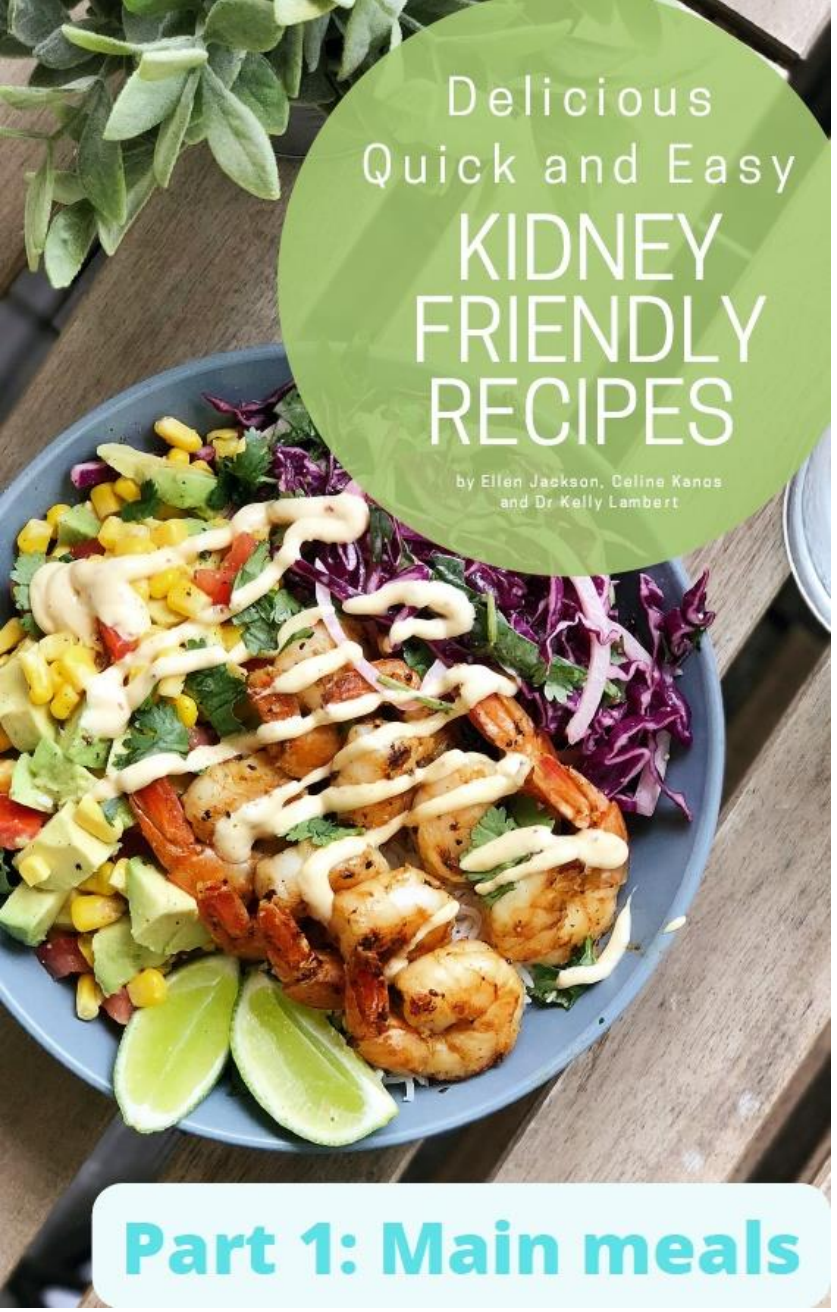
For example, if a recipe includes **2 vegetable choices**, it will count as:

- Low K: < 420mg of K per serving (2x220)
- Low PO4: < 60mg of PO4 per serving (2x30)
- Low Na: < 30mg of Na per serving (2x15)

A mixed recipe that included **3 protein choices, 1 fruit and one vegetable choice would count as:**

- **High Protein: >** 23.5g of protein per serving (3x7 + .5 + 2)
- Low K: < 740mg of K per serving (3x100+220+220)
- Low PO4: < 255mg of PO4 per serving (3x70+15+30)
- Low Na: < 90mg of Na per serving (3x25+0+15)

For a diabetic diet you can use "carb choices" to allow the patient to incorporate into their diet. Basically, it means that you look at total carbs, subtract the fiber and every 15g is one carb choice. carbs – fiber= 15g per carb choice



Each recipe in this book aims to provide less than each nutrient benchmark per serve:

Meal	Sodium mg (mmol)	Potassium mg (mmol)	Phosphate (mg)	Protein (grams)
Main meal	690 (30mmol)	780 (20mmol)	<350mg	<20g
Light meal	460 (20 mmol)	585 (15mmol)	<250mg	<20g
Snacks	230mg (10mmol)	195mg (5mmol)	<50mg	<5g

Nutrient Values Per Serve:

Protein (total): **4g**
Protein rich food exchange: **0**
Carbohydrate: **5g**
Carbohydrate Exchange: **0.3**
Sodium: **45mg**
Potassium: **220mg**
Phosphate: **66mg**

Suitable for:

- ✓ Low sodium
- ✓ Low phosphorous
- ✓ Low potassium
- ✓ Low protein
- ✓ Diabetic diet

Nutrient recommendations, stages 3,4 and 5 (not on dialysis) and kidney failure

Nutrient	Value
Sodium	1500 mg or less
Potassium	2000 mg or less
Phosphorus	800-1000 mg
Protein	See below

Protein recommendations by stage

Daily Protein Recommendations	Women	Men
Stages 1 and 2	46 g (6-7 oz)	56 g (8 oz)
Stages 3, 4 and 5 (not on dialysis)	35-42 g (5-6 oz)	42-56 g (6-8 oz)
Kidney failure (on dialysis)	2-78 g (10-11 oz)	84-93 g (12-13 oz)

These are general guidelines from KDOQI. Individual needs may vary. Please check with your doctor or dietitian.

How we calculate low, medium and high nutrient values in our recipes:

Nutrient	Low (per serving)	Medium (per serving)	High (per serving)
Sodium	140 mg or less	141 mg - 399 mg	400 mg or more
Potassium	300 mg or less	301 mg - 599 mg	600 mg or more
Phosphorus	150 mg or less	151 mg - 299 mg	300 mg or more
Protein	8 g or less	9 g - 20 gm	21 g or more

Key: g = gram(s) mg = milligram(s) oz = ounce(s)

(Source: American Kidney Funds)

Per serving (main meal)

	Low	High
Na	<345 mg	>690 mg
K	<390 mg	>780 mg
PO4	<175 mg	>350 mg

	Canadian	Hungary	American
Low Na	<90 mg	<150 mg	<140 mg
Low K	<740 mg	<500 mg	<300 mg
Low PO4	<255 mg	<200 mg	<150 mg

	Australia	AKF
High Na	>690 mg	>400 mg
High K	>780 mg	>600 mg
High PO4	>350 mg	>300 mg

Set at ½ of the high level

Adopt the Australian approach

*An interim decision by the Working group after due consideration

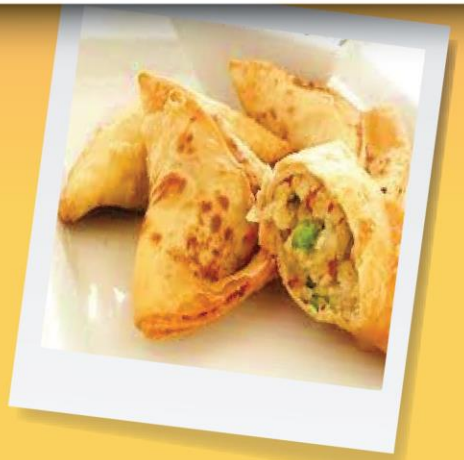




WORLD KIDNEY RECIPES

Why? What? How?




To collect renal recipes from around the world

- Members of IFKF-WKA were invited to submit 5 recipes
- An international panel of dietitians and physicians
(i) vetted the recipes and made suggestions for amendments
(ii) deliberated on how to present the recipes and agreed on the format of presentation (a one-page presentation)
- Hong Kong Kidney Foundation (SF Lui) commissioned the production of the recipes according to the format
- IFKF-WKA IT team posted the recipes on IFKF-WKA website

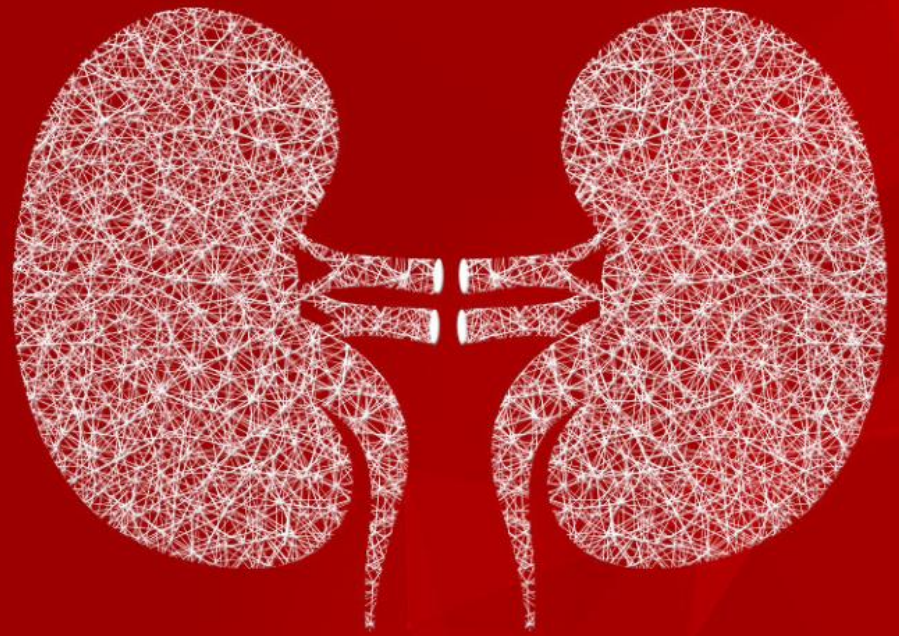
IFKF-WKA

Home | About IFKF – WKA | Members | News | Programs | WKD | Meetings | Survey | Education | Patient Corner | Awards | Gallery

Welcome to the

International Federation of Kidney Foundations - World Kidney Alliance

- Better kidney health for all.
- Optimal care for people affected with Kidney Disease or Kidney Failure.



WORLD KIDNEY ONLINE

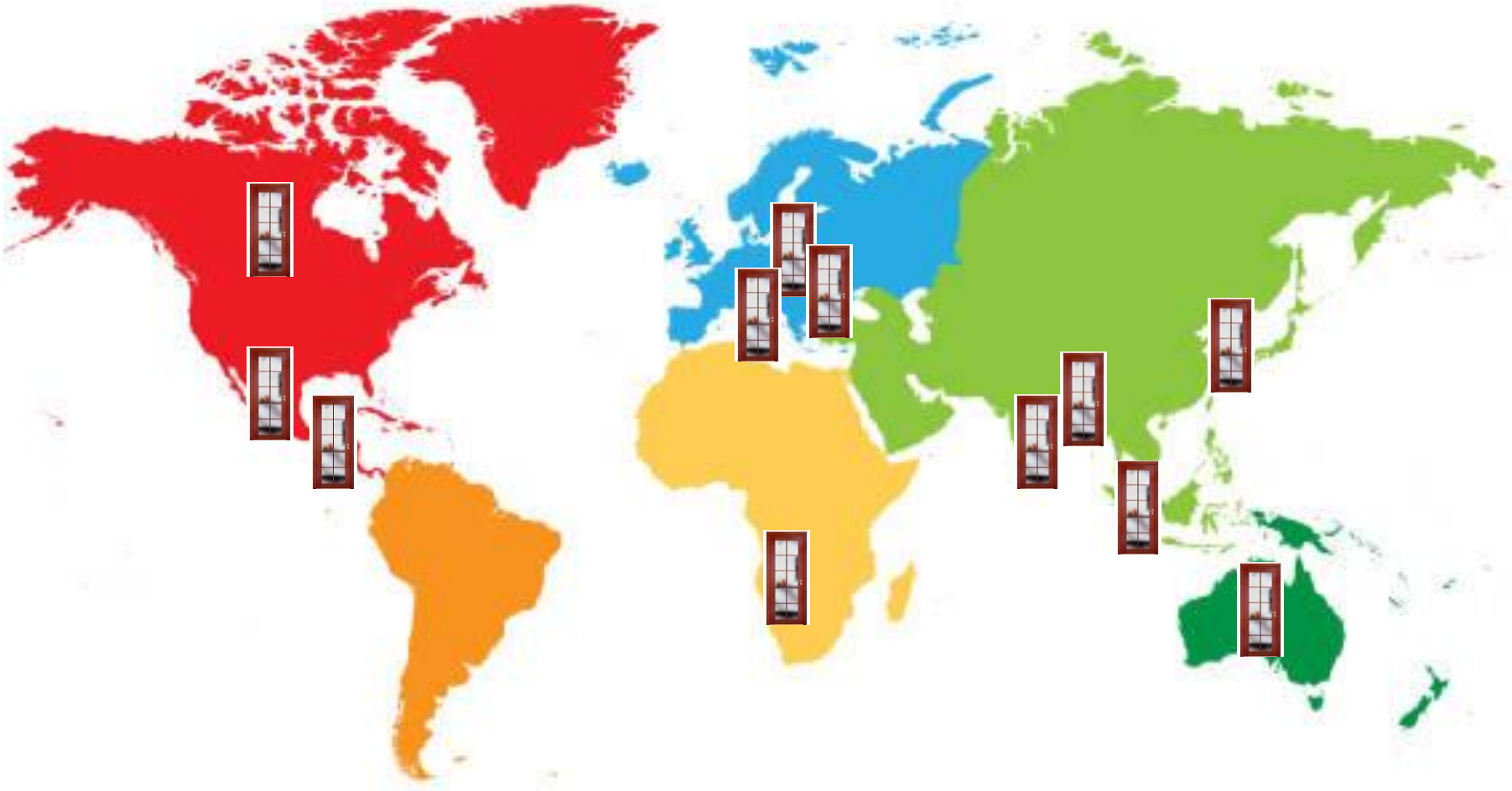
WORLD KIDNEY RECIPES

WORLD KIDNEY SURVEY & RESEARCH

WORLD KIDNEY MEETING & CONSENSUS

WORLD KIDNEY GIVE

World Kidney Recipes

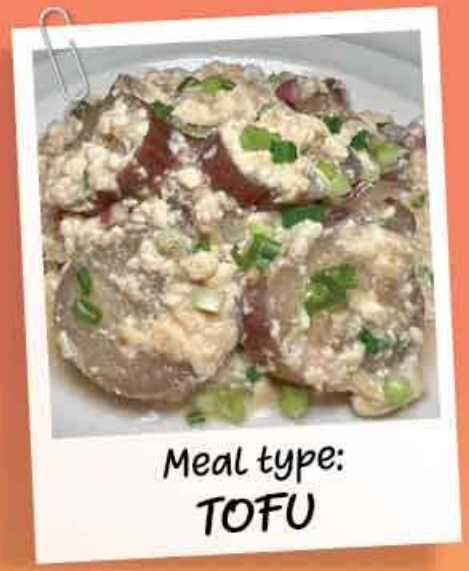


WORLD KIDNEY RECIPES

- Australia
- Bangladesh
- Canada (TBC)
- Guatemala
- Hong Kong
- Hungary
- India
- Italy
- Malaysia
- Mexico
- South Africa
- Türkiye

Recipes in a structured format, easy to understand and to use

WORLD KIDNEY RECIPES



Meal type:
TOFU

Eggplant and tofu with miso

WORLD KIDNEY RECIPES

HONG KONG, CHINA

INGREDIENTS (SERVE 2)

- 2 eggplant (~120g each)
- 400g of firm tofu
- 1 tbsp of miso
- 1 tsp of sugar
- 2 tsp of Japan sake
- 2 tbsp of minced garlic
- 1 tbsp of minced ginger
- Chopped spring onion
- Cornstarch
- 1 tbsp of oil
- 1 tbsp of white vinegar

PREPARATION

1. Wash and cut the eggplant into pieces.
2. Boil a pot of water over heat, use a sieve to gently press the eggplant into the water, continue to pressure cook for about 4 minutes, then remove the eggplant and rinse with cold water to cool down.
3. Dry the tofu with kitchen paper, place it in a bowl and crush it with a fork.
4. Heat a tablespoon of oil in a wok, fry minced ginger and minced garlic until fragrant, then add in chopped tofu and stir well.
5. Add wine, miso and sugar and stir well. Add eggplant and cook on low heat for 5 minutes. If the sauce is too thin, you can add cornstarch water to thicken the gravy, sprinkle with chopped green onion, and serve.

EACH SERVING PORTION

Protein
1 exchange

Carbohydrates
0.5 exchange

- Low sodium*
- Low potassium*
- Low Phosphorus*

TIPS

- To adjust the protein content, vary the amount of tofu to be consumed.
- To reduce the potassium content, boil the eggplant with water first. It will also prevent the eggplant from turning black.
- To reduce the amount of oil, pre-cook the eggplant before frying, as the eggplant absorbs more oil.

PER SERVING

CALORIE	PROTEIN	CARBOHYDRATES	TOTAL FAT	SODIUM	POTASSIUM	PHOSPHORUS
141 Kcal	9 g	8 g	8 g	159 mg	272 mg	138 mg

ACKNOWLEDGEMENT Original recipe by Ms. Winnie Leung
Hong Kong Dietitian Association - Hong Kong Kidney Foundation
Hong Kong Society of Nephrology - Hong Kong Association of Renal Nurses

*Per serving, the nutrient content level is relatively low medium high not classified

IFKF-WKA WORLD KIDNEY RECIPES

Bangladesh

CHICKEN CURRY

KHICHURI

MIXED VEGETABLES CURRY / NIRAMISH

SAFFRON PULAO

VEGETABLE SAMOSA

IFKF-WKA WORLD KIDNEY RECIPES

Guatemala

BURRITO CHAPIN

CALDO DE GALLINA

ELOTE ASADO

ENCHILADAS GUATEMALTECAS

MARÍA COOKIES

IFKF-WKA WORLD KIDNEY RECIPES

Hong Kong, China

EGG AND BEEF IN TOMATO SAUCE

EGGPLANT AND TOFU WITH MISO

PORK CHOP WITH CORN SAUCE

STEAMED SCALLOPS AND TOFU WITH GARLIC

STIR-FRIED GROUPER FILLET AND ASPARAGUS IN XO SAUCE

IFKF-WKA WORLD KIDNEY RECIPES

Hungary

HUNGARIAN GOULASH

PAPRIKA CHICKEN WITH NOODLES

PASTA WITH CURD CHEESE

STUFFED CABBAGE

FRIED DOUGH

Mexico

BURRITO NORTEÑO
NORTHERN BURRITO

CEVICHE DE PESCADO
FISH CEVICHE

ENCHILADAS POBLANAS
POBLANO ENCHILADAS

FIDEOS DE CHIPOTLE
CHIPOTLE NOODLES

MANTECADA DE NARANJA
ORANGE SHORTBREAD

Mexico

CORN DOUGH MOLE
WITH PORK

STUFFED POBLANO
PEPPERS

SQUASH BLOSSOM
GORDITAS

UCHEPOS (CORN
TAMALES)

ZUCCHINI WITH
CORN

South Africa

FISH AND VEGETABLE PIE

PINEAPPLE CHICKEN

RICE SALAD

VEGETABLE LASAGNA

VEGETABLE PAELLA

Turkey

Anatolian style rice pilaf

Asparagus wIth Meat
and Lemon Sauce

Cacik

Green Bean W/Olive oil

Vanilla Custard

India

PANEER STICKS

PEAS TOFU ROLLS

QUINOA PULAO

Italy

LASAGNA REVISITED

LOW-PROTEIN LINGUINE PASTA WITH PESTO SAUCE

LOW-PROTEIN FOCACCIA BREAD WITH HERBS

LOW-PROTEIN CREAM TART WITH STRAWBERRIES

TOMATO BRUSCHETTA WITH VEGETABLES

Malysia

APPAM
(RICE & COCONUT HOPPERS)

AONDEH-ONDEH

CHICKEN RENDANG

UNRIPE PAPAYA SALAD

NASI LEMAK

INSTRUCTION AND DISCLAIMER
ON THE USE OF THE WEBSITE ON WORLD KIDNEY RECIPE

This is a "**Preview"** version of the World Kidney Recipes for healthcare professionals to provide feedback and suggestion (Please email to info@ifkf.org or luisf@luisf.org). **The official version will be launched in October 2022.**

The recipes are only a guide to help people with kidney disease to select and prepare their meals, to provide them with ideas and options. The recipes you choose to enjoy should be guided by advice from your healthcare professionals (doctor, nurse, dietitian), and should take into account your physical condition, blood test results, treatment, dialysis-dependent or not, and any other health conditions you may have.

The recipe has information on the protein, carbohydrates, fat, sodium, potassium, and phosphorous content of one serving of the meal. The protein and carbohydrate content are also expressed as "exchanges" (1 protein exchange is 7g, 1 carbohydrate exchange is 15g). The "Low" or "High" indicator* is only a relative indicator for one serving and must be considered in the context of your condition - body weight, blood test results, stage of kidney failure, type of renal replacement therapy and meal plan for the day/week. The actual level per serving is also provided.

For per serving	Relatively low*	Relatively high*
Sodium	<345 mg	>690 mg
Potassium	<390 mg	>780 mg
Phosphorus	<175 mg	>350 mg

Kidney and patient-friendly recipes For patients with kidney disease

The Hong Kong Journey

- Co-design, Co-production
- Physicians, nurses, dietitians and patients
- The process, the product
- The posting (sharing platform)

Hong Kong, China

EGG AND BEEF IN TOMATO SAUCE

EGGPLANT AND TOFU WITH MISO

Pork Chop with Corn Sauce

STEAMED SCALLOPS AND TOFU WITH GARLIC

STIR-FRIED GROUPER FILLET AND ASPARAGUS IN XO SAUCE

Beef in curry sauce and cauliflower

Beef and eggs in tomato sauce

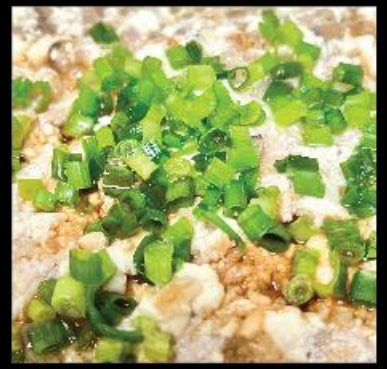
Beef with turnip

Fried chicken with pine nuts

Steamed chicken with dried shiitake mushrooms and cloud ear fugus

Braised chicken wings with carrots and sweet potatoes with lemongrass

Stewed pork in black vinegar sauce



Steamed meatloaf with oatmeal, dried mushroom and dried shrimp

Pork chop in corn sauce

Kung pao shrimps

Stir-fried grouper fillet and asparagus with XO sauce

Steam scallop and tofu with fried and fresh garlic

Eggplant and tofu with miso

Stir-fried garlic shoot with fresh mushroom

Snow fungus, sea coconut, gassho melon & apple soup

Water melon, chinese mushroom, dried scallop and pork soup

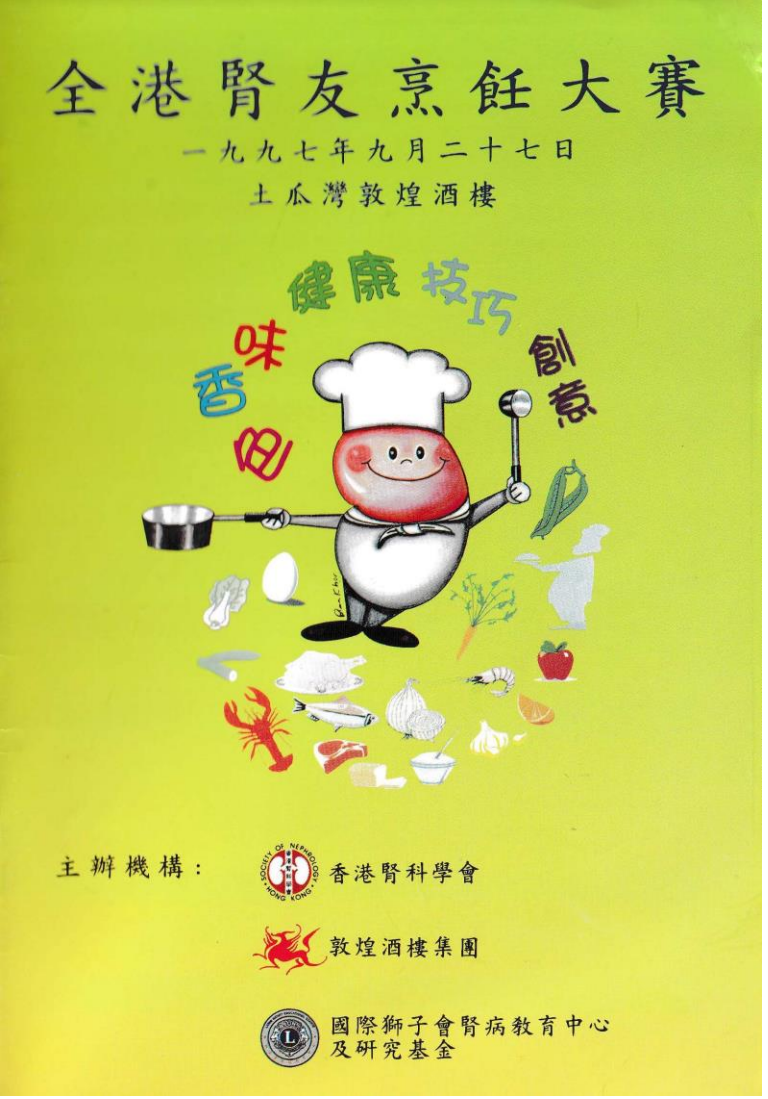
Dace, zucchini and coriander soup

Mustard vegetable, pork shin and white pepper soup

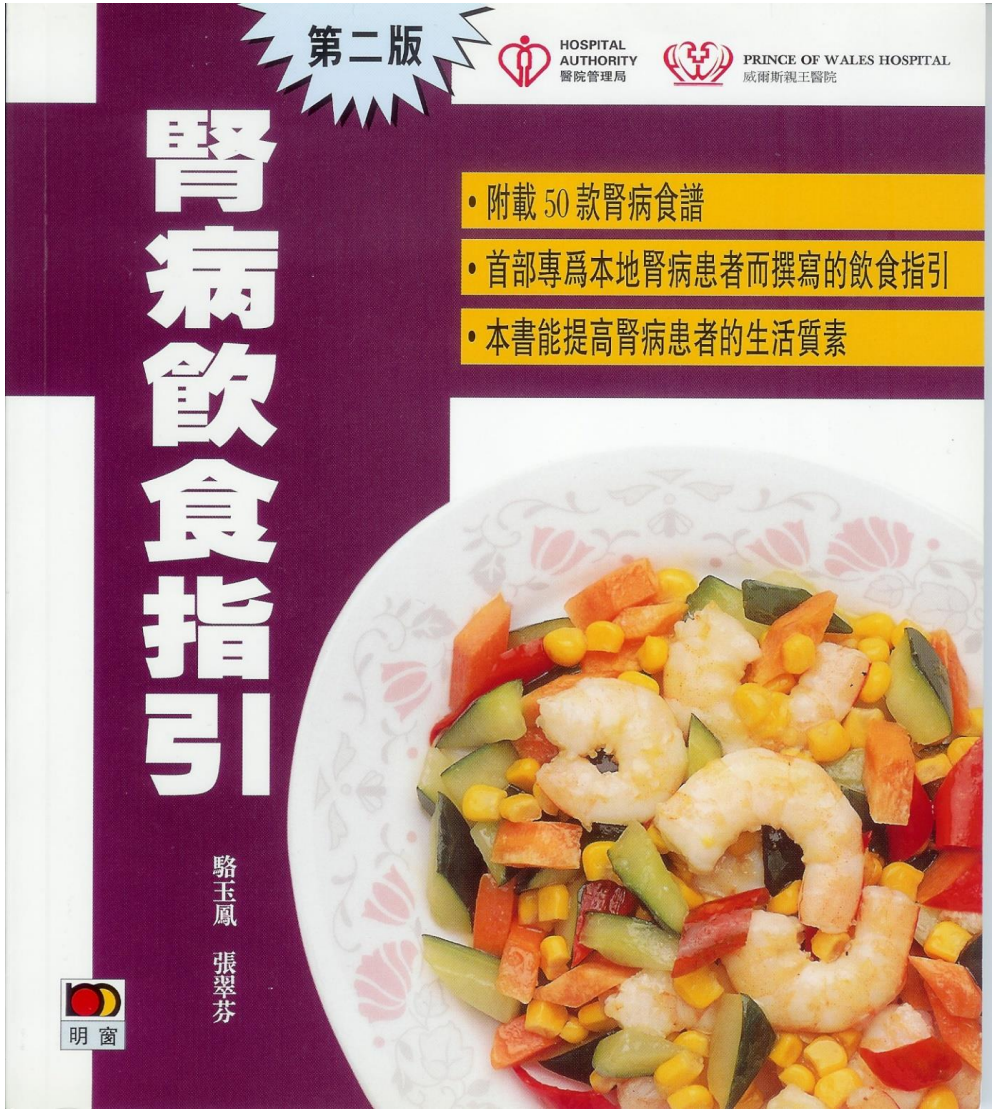
Ongoing interest and work on renal nutrition and diet

Hong Kong Kidney Foundation
Hong Kong Society of Nephrology
Hong Kong Association of Renal Nurses
Hong Kong Dietitians Association

- 1997: **Cooking competition by renal patients**
- 1997: **Diet guide for kidney disease** – Janet Lok, Lorena Cheung
- 2014: **Hong Kong Renal Nutrition workshops and forum**
- 2014**: Cooking competition by renal well-being**
- 2021: **Eat smart, eat well**



1997: **Cooking competition by renal patients**



1997

Diet guide for kidney disease

Janet Lok, Lorena Cheung
Dietitians of Prince of Wales Hospital

日式豬扒（四人分量）

***Fried Pork Chop in Japanese Style** (4 servings)*

材料：
去骨豬扒 320 克（½斤，4 件，每件約重 2 兩）
醃料：
生抽⅔湯匙，老抽½湯匙，薑茸½湯匙，葱粒 1 湯匙，紅辣椒絲½湯匙，胡椒粉少許，糖 1 茶匙，酒½湯匙
做法：
(1)洗淨豬扒，抹乾，用刀背剁鬆，加醃料醃½小時。
(2)燒熱鑊，下 2 湯匙油，將豬扒煎至金黃色，即可上碟供食。

Ingredients:
320g boneless pork chop (4 pieces, about 80g each)
Seasonings:
⅔ tbsp light soy sauce; ½ tbsp dark soy sauce; ½ tbsp mashed ginger; 1 tbsp diced spring onion; ½ tbsp shredded red chilli; some pepper; 1 tsp sugar; ½ tbsp wine
Method:
(1) Rinse pork chop. Slightly hit the pork chop with the chopper's upper part. Marinate for 30 minutes.
(2) Heat 2 tbsp oil. Add in pork chop and pan – fry till it turns golden – brown. Then serve on plate.

營養分析 Nutrient Analysis

每人分量（一件）提供：（高生物質素 2 份，低生物質素 0 份） Each serving (1 piece) provides:

熱量 Energy	189.7 卡路里(cal)	脂肪 Fat	11.9 克(g)	鉀質 Potassium	378.1 毫克(mg)
蛋白質 Protein	17.8 克(g)	膽固醇 Cholesterol	42.8 毫克(mg)	磷質 Phosphorus	193.0 毫克(mg)
醣質 Carbohydrate	2.3 克(g)	鈉質 Sodium	348.8 毫克(mg)	膳食纖維 Dietary Fiber	0.0 克(g)

特點：非常簡單易做，很受大人、小孩歡迎。

Hong Kong Renal Nutrition Workshop and Forum 2014

Renal Nutrition Workshop for dietitians
(nephrologists and renal nurses by invitation)
Saturday 16 August 2014, 9.30 am – 1.00 pm

Renal Nutrition Workshop for Nephrologists, Renal Nurses and Dietitians
Saturday 16 August 2014, 2.00– 6.00 pm

Workshop Venue: Ground floor, M Block, Queen Elizabeth Hospital

Renal Nutrition Forum for Nephrologists, Renal nurses & Dietitians
Sunday 17 August 2014, 9.00 am– 4.00 pm
Venue: Junior Ballroom, Royal Plaza Hotel, Mongkok

Overseas Speakers
Joel D. Kopple
T. Alp Ikizler
Maria Chan

2014 “Eat better” – Cooking Competition for patients with kidney disease

Eat SMART Eat WELL

KIDNEY DIET AND RECIPES

LONG LIVE KIDNEYS AND PATIENT

Eat Happily – Home cooking • Eating out

HONG KONG DIETITIANS ASSOCIATION

HONG KONG KIDNEY FOUNDATION

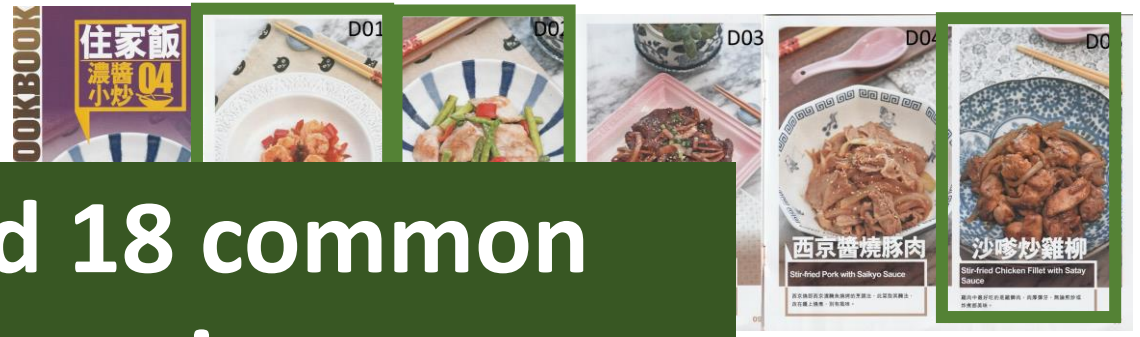
HONG KONG SOCIETY OF NEPHROLOGY

HONG KONG ASSOCIATION OF RENAL NURSES

THE HONG KONG KIDNEY RECIPES
CO-PRODUCTION BY DIETITIANS, HEALTHCARE PROFESSIONALS (DOCTOR/NURSE) AND PATIENTS

1. **A joint project of**
   Hong Kong Kidney Foundation
   Hong Kong Dietitian Association
   Hong Kong Society of Nephrology
   Hong Kong Association of Renal Nurses

2. **Engagement - Patient**
   a. Focus group to identify
      what patients need, wish to know
   b. Survey on what information patients
      want to know, generated a list.



3. Patients selected 18 common home cooking recipes from a Sunday magazine (cookbook)

4. Recipes modified by dietitians to be suitable for kidney patients

Original recipe		**Modified recipe**	
Pork chop	2-3 pieces (360g)	Lean Pork chop	2-3 pieces (360g)
Corn	½ can (200g)	Fresh Corn	1 bowl (145g)
Corn in cream sauce	½ can (200g)	Sugar free almond milk	200 mL
Egg	1		
		Low-gluten flour	1 table spoon
Oil	Small amount	Canola oil	2 teaspoon
Marinade			
Light soya sauce	2 tablespoons	Light soya sauce	2 tablespoons
Dark soya sauce	1 teaspoon		
		Rice wine	1 teaspoon
Cornstarch	1 teaspoon	Cornstarch	1/2 teaspoon
Sugar	1 teaspoon	Sugar	1 teaspoon
Pepper	Moderate	Pepper	Moderate

	Calorie (Kcal)	Protein (g)	Carbohydrates (g)	Fat (g)	Sodium (mg)	Potassium (mg)	Phosphorus (mg)
Original	662	52	47	32	1668	958	569
Modifed	195	22	11	7	220	359	245

Eggplant and tofu with miso

WORLD KIDNEY RECIPES

HONG KONG, CHINA

Meal type:
TOFU

EACH SERVING PORTION

Protein
1 exchange

Carbohydrates
0.5 exchange

Low sodium*

Low potassium*

Low Phosphorus*

INGREDIENTS (SERVE 2)

- 2 eggplant (~120g each)
- 400g of firm tofu
- 1 tbsp of miso
- 1 tsp of sugar
- 2 tsp of Japan sake
- 2 tbsp of minced garlic
- 1 tbsp of minced ginger
- Chopped spring onion
- Cornstarch
- 1 tbsp of oil
- 1 tbsp of white vinegar

PREPARATION

1. Wash and cut the eggplant into pieces.
2. Boil a pot of water over heat, use a sieve to gently press the eggplant into the water, continue to pressure cook for about 4 minutes, then remove the eggplant and rinse with cold water to cool down.
3. Dry the tofu with kitchen paper, place it in a bowl and crush it with a fork.
4. Heat a tablespoon of oil in a wok, fry minced ginger and minced garlic until fragrant, then add in chopped tofu and stir well.
5. Add wine, miso and sugar and stir well. Add eggplant and cook on low heat for 5 minutes. If the sauce is too thin, you can add cornstarch water to thicken the gravy, sprinkle with chopped green onion, and serve.

TIPS

- To adjust the protein content, vary the amount of tofu to be consumed.
- To reduce the potassium content, boil the eggplant with water first. It will also prevent the eggplant from turning black.
- To reduce the amount of oil, pre-cook the eggplant before frying, as the eggplant absorbs more oil.

PER SERVING	CALORIE	PROTEIN	CARBOHYDRATES	TOTAL FAT	SODIUM	POTASSIUM	PHOSPHORUS
	141 Kcal	9 g	8 g	8 g	159 mg	272 mg	138 mg

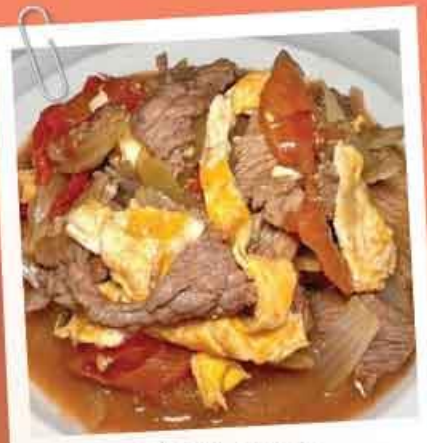
ACKNOWLEDGEMENT Original recipe by Ms. Winnie Leung
Hong Kong Dietitian Association - Hong Kong Kidney Foundation
Hong Kong Society of Nephrology - Hong Kong Association of Renal Nurses

*Per serving, the nutrient content level is relatively low medium high not classified

Egg and beef in tomato sauce

WORLD KIDNEY RECIPES

HONG KONG, CHINA



Meal type:
BEEF, EGG

INGREDIENTS (SERVE 4)

- 200g of lean beef
- 2 tomatoes
- 2 eggs
- 1 small onion
- 4 cloves of garlic pressed
- 2 tsp of sugar
- Cornstarch water
- 2 tsp of oil

MARINADE FOR BEEF

- ¾ tbsp of light soy sauce
- 1 tsp of cornstarch
- ½ tsp of sesame oil
- Pepper powder

SAUCE • 200ml of water

PREPARATION

1. Slice the beef, add marinade and marinate for 10 minutes.
2. Wash and cut the tomato into pieces, cut the onion into shreds (soak onion in water for 2 hours)
3. Heat a teaspoon of oil in a wok, fry the eggs until fully cooked, set aside and cut into pieces.
4. Heat a teaspoon of oil in a wok, saute garlic until fragrant, add beef slices and fry until half cooked, set aside.
5. Add onion to wok to stir fry until half cooked, then add tomatoes and sugar to the wok and stir well.
6. Add 200ml of hot water to cover the tomatoes and cook for 5 minutes.
7. Return the beef to the wok and stir well.
8. Pour in the cornstarch water, slowly mix until the sauce thicken, add in the egg and mix. Serve.

EACH SERVING PORTION

Protein
2 exchanges

Carbohydrates
0.5 exchange

Low sodium*

Low potassium*

Low Phosphorus*

TIPS

- To adjust the protein content, vary the amount of beef to be consumed.
- To reduce potassium, sook the vegetables in water for 2 hours.
- Onion is rich in fiber and vitamins, but relatively low in potassium. It can make the dishes more delicious.
- Can add pepper powder to enhance the seasoning. Use garlic to increase the fragrance.
- To reduce fat, choose lean parts of the beef.

PER SERVING

CALORIE	PROTEIN	CARBOHYDRATES	TOTAL FAT	SODIUM	POTASSIUM	PHOSPHORUS
152 Kcal	15 g	5 g	8 g	251 mg	325 mg	171 mg

ACKNOWLEDGEMENT Original recipe by Ms. Winnie Leung
Hong Kong Dietitian Association • Hong Kong Kidney Foundation
Hong Kong Society of Nephrology • Hong Kong Association of Renal Nurses

*Per serving, the nutrient content level is relatively low medium high not classified

5. **Recipes reviewed and modified to optimize the options, add in the tips.**
6. **Recipes test-cooked by SF Lui and others, enhancement.**

7. **Promotion**

   Hong Kong Kidney Recipe was launched on 2 August 2022
   2 episodes of online webinars (19 July and 2 August 2022)
   broadcasted via YouTube and Facebook.

   The recording can be viewed anytime.
   - Promoted by newspaper website with a very wide readership.
   - Posting on the HKKF website.

腎智台 KIDNEYS TALK

Kidneys Talk 2.0
19 July 2022

知多D腎好

Renal nutrition and Diet

Eat smart, Eat well (1) Good tips

Speakers: Dr. Achilles Lee, Hong Kong Society of Nephrology
Ms. Cherry Law, Hong Kong Association of Dietitians

Host: Dr. Sunny Wong, Hong Kong Society of Nephrology
Ms. Sabrina Mok, Hong Kong Association of Dietitians

Recording: https://hkkf.org.hk/testing/wp-content/uploads/2022/08/KT2_E2_%E9%A3%9F%E9%86%92D%E9%A3%9F%E5%A5%BDD1-%E5%A5%BD%E8%B2%BC%E5%A3%AB.pdf

PowerPoint presentation : https://hkkf.org.hk/testing/wp-content/uploads/2022/08/KT2_E2_%E9%A3%9F%E9%86%92D%E9%A3%9F%E5%A5%BDD1-%E5%A5%BD%E8%B2%BC%E5%A3%AB.pdf

腎智台 KIDNEYS TALK

Kidneys Talk 2.0
12 August 2022

知多腎好

Renal nutrition and Diet

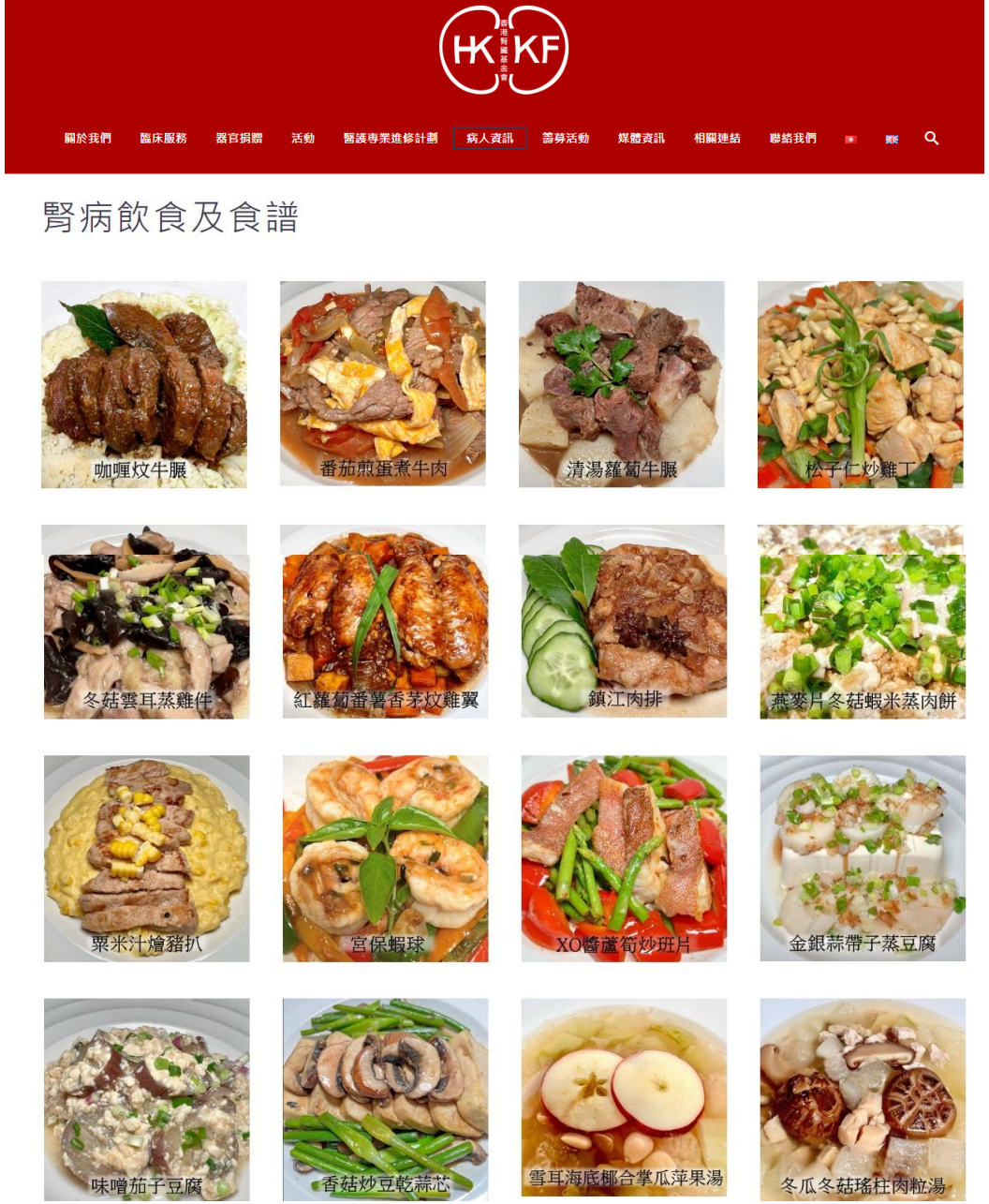
Eat smart, Eat well (2) Good recipes

Speakers: Ms. Sylvia Lam, Hong Kong Society of Nephrology
Ms. Zoe Vy, Hong Kong Association of Dietitians

Host: Ms. Danica Yau, Hong Kong Association of Dietitians
Dr. SF Lui, Hong Kong Kidney Foundation

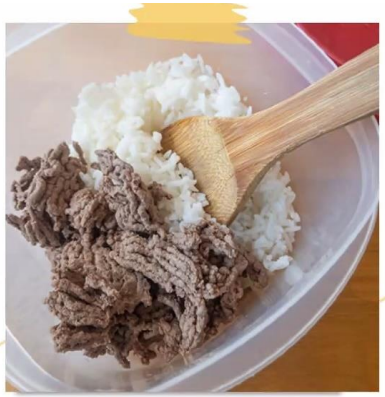
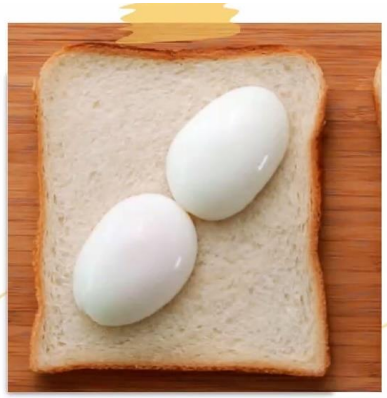
Recording: https://hkkf.org.hk/testing/wp-content/uploads/2022/08/KT2_E2_%E9%A3%9F%E9%86%92D%E9%A3%9F%E5%A5%BDD1-%E5%A5%BD%E8%B2%BC%E5%A3%AB.pdf

PowerPoint presentation : https://hkkf.org.hk/testing/wp-content/uploads/2022/08/KT2_E2_%E9%A3%9F%E9%86%92D%E9%A3%9F%E5%A5%BDD1-%E5%A5%BD%E8%B2%BC%E5%A3%AB.pdf



https://hkkf.org.hk/zh/hk-recips/

“OLD” Renal Diet

“NEW” Renal Cuisine

Eat smart, Eat well

- **Not a one-step process to get to "Eat smart, Eat well".**

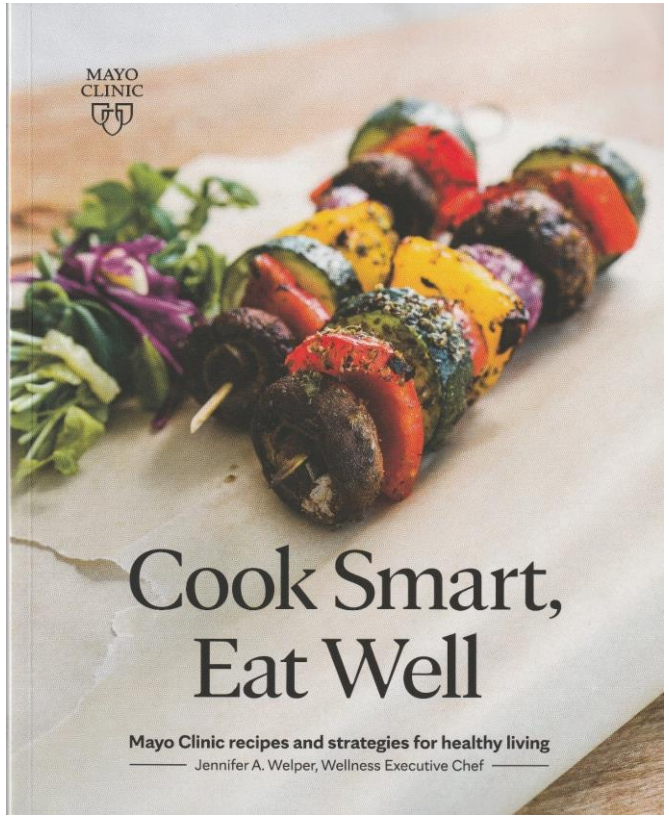
  Continuous enhancement of the recipes

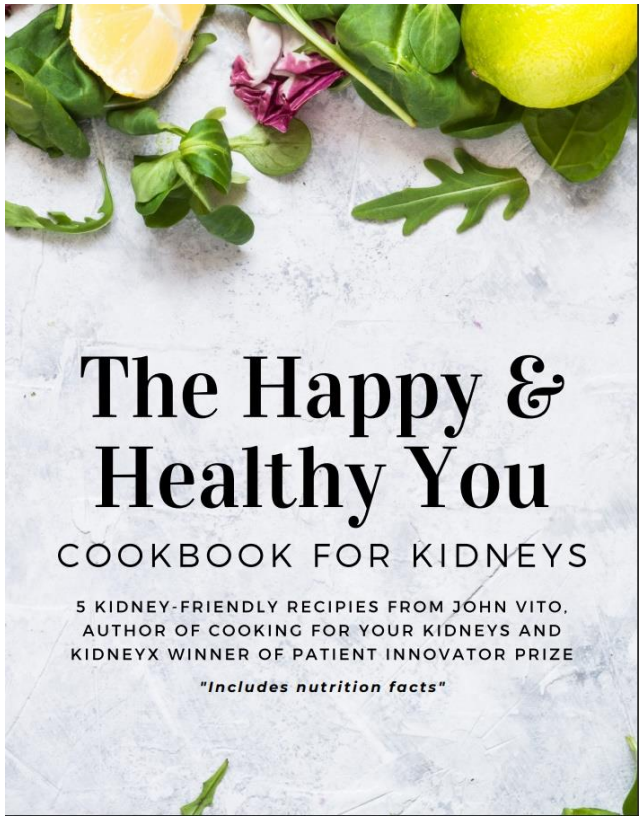
  - to be more user-friendly, easier to understand,
  - to provide more tips
  - to standardize the presentation (of tips)
  - to be smarter, new ways of cooking

  (recipe can be updated easily as it is a web-based version).

- Many interesting and challenging questions for discussion
- The current version as a **Preview version** for healthcare professionals to give feedback and suggestion.

Healthy and good eating for all …





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Culinary Health Education Fundamentals (CHEF) Coaching—The Basics

This course offers proven strategies to counsel and motivate patients to improve their cooking habits for better health.

TAKE COURSE

PACE	Self-paced
SUBJECT	Health & Medicine
COURSE LANGUAGE	English
DIFFICULTY	Intermediate
CREDIT	Certificate of Completion
PLATFORM	Other
TOPIC(S)	CANCER, DIABETES, DISEASES, DISORDERS, HEALTHCARE, NUTRITION

Open May 11, 2020 – May 11, 2023 | Register by April 11, 2023 | $220

What you'll learn

- Discuss the relationship between home cooking and health
- Explain the rationale for the importance of patients' culinary behaviors
- Summarize common barriers to home cooking, and explore alternative cooking skills to help address those barriers
- Identify strategies to facilitate cooking for improved personal health

VIEW ALL COURSES

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CHEF Coaching Beyond the Basics

This culinary medicine course offers a deep dive into culinary coaching, a proven strategy to improve nutrition, with the use of evidence-based tools and techniques for providing individualized home cooking patient education.

TAKE COURSE

PACE	Instructor-led
SUBJECT	Health & Medicine
COURSE LANGUAGE	English
DIFFICULTY	Intermediate
CREDIT	CE/CME Certificate
PLATFORM	HMS Continuing Education
TOPIC(S)	HEALTH, HEALTHCARE, NUTRITION

Runs January 11 – February 12, 2021 | Closed | $495

What you'll learn

- Demonstrate patient-centered culinary knowledge and skills, and describe strategies for empowering patients to adopt home cooking
- Use remote culinary resources to improve culinary behaviors of physicians and their patients
- Develop culinary confidence and skills, and learn strategies to facilitate cooking for improved personal health

SF Lui attended these Interesting courses.

One kidney world, One common goal

Better kidney health for all

Better care of patients with kidney disease for a better life

Eat Smart, Eat well

WORLD KIDNEY ONLINE

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by Dr. Roy Lau

The Time is Now
Reconsideration on **Dietary Intervention** in CKD

Dr. Lui Siu Fai
BBS, MH, JP
President of International Federation of Kidney Foundations - World Kidney Alliance (IFKF-WKA)

Dr. Angela Yee-Moon Wang
MD, PhD
President of International Society of Renal Nutrition and Metabolism (ISRNM)

Chronic kidney disease (CKD) affects about 10% of global population with an increasing prevalence[1], and the CKD burden in Hong Kong is expected to be high. Undoubtedly, adherence to healthy diets is an important measure in the management of CKD and is recommended by international guidelines. Particularly, protein restriction has been recommended for CKD patients, but the compliance to the recommended diet is low in reality. Thus, reconsideration on the recommendations on dietary intervention and the approach for delivering kidney health information to CKD patients is urgently needed. In a recent interview, Dr. Lui Siu Fai, President of International Federation of Kidney Foundations - World Kidney Alliance (IFKF-WKA), and Dr. Wang Yee Moon Angela, President of the International Society of Renal Nutrition and Metabolism, shared their expertise on dietary intervention for patients with kidney diseases and discussed the essence of health literacy as well as its significance in improving clinical dietary advices.

The Impact of High-protein Diet on Renal Function

A high consumption of proteins could be detrimental to kidney function through several mechanisms. Dr. Wang addressed that high dietary protein intake may lead to afferent arteriole vasodilatation and efferent arteriole vasoconstriction resulting in an increased intra-glomerular pressure and glomerular hyperfiltration, which in the long-term can lead to de novo or aggravating pre-existing CKD. Briefly, glomerular hyperfiltration would stimulate mesangial cell signaling to increase the level of transforming growth factor-β (TGF-β), which subsequently contributes to the progression of kidney fibrosis. Besides, protein-rich foods contain high levels of advanced glycation end products (AGEs), which would impair protein degradation leading to basement membrane thickening and mesangial expansion in glomerulus of diabetic kidney disease (DKD). Notably, the pathogenic response of AGEs could be mediated with the proinflammatory receptor for AGE (RAGE) presented on glomerular cells, whereas RAGE activated signals culminating in cellular inflammation and death (**Figure 1**)[2]. Dr. Wang emphasised that the impacts of high-protein diet are not limited solely in the glomeruli. "There are research works suggesting that high-protein diet increases the risk of inflammation in kidney, and diseases such as hypertension," she noted.

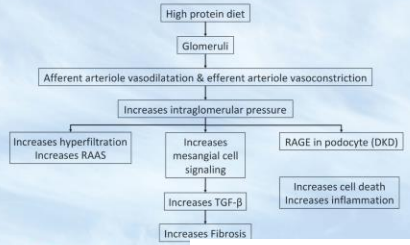

Figure 1. *Possible mechanisms of high*
RAAS: renin-angiotensin-aldosterone

Low-protein Equals Renoprotective?

Low-protein diet has been suggested to provide many advantages in the management of CKD patients by reducing nitrogen waste products and decreasing kidney workload through lowering intra-glomerular pressure. Low-protein diet is also reported to induce favorable metabolic effects that can preserve kidney function and help to control uremic symptom[3].

The Modification of Diet in Renal Disease (MDRD) study is considered the largest randomised control trials (RCT).

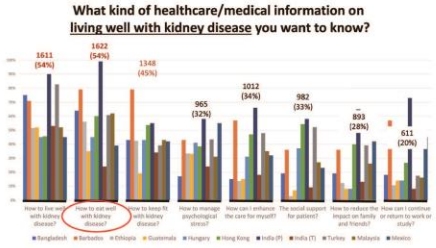

Figure 3. *Key healthcare/medical concerns among patients with kidney diseases (data provided by Dr. Lui)*

Healthy Dietary Pattern Matters

Apart from the amount of protein intake, Dr. Wang emphasised the importance of adopting a healthy dietary pattern. She noted that current clinical recommendations tend to take patients' outcomes, quality of life, and sense of wellbeing into account instead of focusing on the dietary restriction on a single nutrient.

Dr. Wang advised to intake more vegetables and fruits and less meats, especially the processed ones. Indeed, the benefits associated with vegetables and fruits have been reported extensively. While metabolic acidosis in CKD is aggravated by the high consumption of meat and refined cereals, increasing the dietary acid load, the intake of fruits and vegetables is able to neutralize the acidosis and its deleterious consequences[4]. However, based on Dr. Wang's observation, more than 50% of patients in her clinic have not taken enough plant-based proteins with health benefits, but having too much processed meat.

On the other hand, Dr. Wang reminded to notice the patients' salt intake. Remarkably, she highlighted that high dietary potassium is associated with a decrease in blood pressure, particularly in the presence of a high-sodium diet[5].

"Allowing patients to living well with kidney diseases is essential, while the key point is to adopt a healthy dietary pattern," Dr. Wang said. She stressed that the healthy dietary pattern has to be adopted as soon as possible, but not after diagnosis of kidney disease is documented.

The Role of Health Literacy

Recently, the IFKF-WKA conducted an online survey among patients with kidney diseases worldwide, the results revealed that the information on how to eat well with kidney diseases is a core concern for the participants (**Figure 3**).

Dr. Lui further addressed that healthcare professionals are a trusted source of healthcare information for the patients. Therefore, he noted that it is the responsibility of healthcare professionals to facilitate patients to find the right information at the right platform in the right format. Of importance, the information has to be understandable for patients. This highlights the essence of improving health literacy, which refers to the degree to which individuals have the capacity to obtain, process and understand basic health information and services needed to make appropriate health decisions[7].

Apart from individual health literacy, organisational health literacy defines the role of healthcare organisations in making health information and services easy to understand and access[8]. In this regard, the "Kidneys Talk" webinar series, which aim to provide information on kidney health and treatment options and healthy diets for CKD patients have been launched in 2021. The webinar series are broadcasted at various online and mass media platforms.

Making Sense of Renal Dietary Advice

With the right information and platforms, the healthcare information has to be in the right format which is understandable and, more importantly, applicable for patients. In the context of renal dietary advice, Dr. Lui emphasised that the information has to be simple and layman. "The prerequisite to use the refined dietary intervention (the "World Kidney Recipes") is the patients' basic knowledge of nutrition and diet for kidney disease. They also need to be aware of their own condition," Dr. Lui addressed. When using the World Kidney Recipes, patients are expected to amend their own recipes to meet their recommended dietary requirements.

Translating the scientific data into applicable information is essential for allowing the patients to follow the dietary recommendations. Dr. Lui commented that the numeric data in traditional dietary recommendation would be rather confusing. Hence, he proposed to classify the levels of nutrients with indicators such as "high", "medium", and "low" in addition to numeric values. He added that the indicator is only a relative measure that needs to take into account the patient's conditions, such as body weight and biochemistry and stage of kidney failure.

Moreover, Dr. Lui suggested the use of exchange portions in designing the recipes. For instance, 1 exchange portion denotes 7g of protein, which also denotes 15g of carbohydrates. Practically, patients do not need to have a different recipe for different stages of kidney failure, or renal replacement therapy, but to modify the recipe, such as the portion size, according to the advices of healthcare professionals.

Bring the Joy Back into Eating – The World Kidney Recipes

The main goal of the of World Kidney Recipes is to galvanise patients and their care partners to work with gastronomic experts and dietetic professionals, including chefs and

dietitians, to inspire creativity in culinary medicine and medical nutrition therapy in kidney care. Practically, it is to translate the dietary recommendations into day-to-day practice for patients with kidney diseases. In the process, the role of dietitians is crucial that they help modifying the recipes to be suitable for kidney patients (**Figure 4**).

Original recipe		Modified recipe	
Pork chop	2-3 pieces (360g)	Lean Pork chop	2-3 pieces (360g)
Corn	½ can (200g)	Fresh Corn	1 bowl (145g)
Corn in cream sauce	½ can (200g)	Sugar free almond milk	200 mL
Egg	1		
		Low-gluten Flour	1 table spoon
Oil	Small amount	Canola oil	2 teaspoon
Marinade			
Light soya sauce	2 tablespoons	Light soya sauce	2 tablespoons
Dark soya sauce	1 teaspoon		
		Rice wine	1 teaspoon
Cornstarch	1 teaspoon	Cornstarch	1/2 teaspoon
Sugar	1 teaspoon	Sugar	1 teaspoon
Pepper	Moderate	Pepper	Moderate

	Calorie (Kcal)	Protein (g)	Carbohydrates (g)	Fat (g)	Sodium (mg)	Potassium (mg)	Phosphorus (mg)
Original	662	52	47	32	1668	958	569
Modified	195	22	11	7	220	359	245

Figure 4. *Modified recipe by dietitians for kidney patients (information provided by Dr. Lui)*

"We aim to help them to fish, rather than give them the fish," Dr. Lui addressed. Hence, the involvement of patients in the development of the World Kidney Recipes is crucial. Upon improving health literacy, the patients are expected to have basic knowledge on diet and nutrition and their health conditions. Hence, they can decide the number of portions for each meal in accordance with the recommended number of portions. Remarkably, in cases the patients take some food elements in excess in a meal, they can make adjustment in the next meal. This hence enhances the flexibility for patients in meal planning.

An example of World Kidney Recipes is shown in **Figure 5**. Apart from ingredients and preparation procedures, patients can find information on the expected exchange portions consumed from this dish. Each recipe is labeled with indicators coupled with the actual amount of food elements, such as low sodium and low phosphorus. Essentially, the recipe also highlights which food elements may be in excess, potassium in this recipe (highlighted in yellow). A remarkable feature of the World Kidney Recipes is the inclusion of tips on cooking skills (in the green box), which helps improving health outcomes and matching with patients' preferences.

Eat Smart, Eat Well

Dr. Lui emphasised that it is not a one-step process to get to "eat smart, eat well" for kidney patients. "Continuous enhancement of the World Kidney Recipes is needed to make it more user-friendly, to provide more tips, to include new smarter ways of cooking," he noted. However, there are still challenges for the World Kidney Recipes. Firstly, Dr. Lui highlighted that there is currently no consensus in the standard of "high" and "low" globally, whereas the working group of World Kidney Recipes adopted the Australian standard. On the other hand, the current recipes focus on home cooking, but the case of dining out is not included. The amount of food elements consumed when dining out may be difficult to be estimated and control, but it is crucial for the patients to aware on the food contents they intake.

In summary, Dr. Lui commented that a balance between nutrition requirements and protecting kidney functions has to be established. The key issue is to empower the patients to choose the appropriate food and to prepare and serve them correctly, based on the recommendations of healthcare professionals. As addressed by Dr. Wang, to slow down kidney failure, dietary pattern definitely has a vital role. She stressed that maintaining the appropriate balance between plant-based protein and meat-based protein is essential. In reality, the restrictive diet adversely impact the quality of life for kidney patients, thus a change from restrictive diet to modified diets is needed to improve compliance and health outcomes. Finally, Dr. Wang concluded with the name of a nutritional education program for CKD patients that kidney patients should "eat like a rainbow".

Figure 5. *The World Kidney Recipes (information provided by Dr. Lui)*

For more information, please visit www.vpulsehk.com

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The fun of cooking

The joy of eating (appetizing)

WORLD KIDNEY RECIPES

Hong Kong

- Hong Kong Kidney Foundation
- Hong Kong Dietitian Association
- Hong Kong Society of Nephrology
- Hong Kong Association of Renal Nurses
- Ms. Winnie Leung (original recipes)
- Ms. Ann Fong (graphics)

IFKF-WKA members (recipes)

Australia	India
Bangladesh	Italy
Canada (TBC)	Malaysia
Guatemala	Mexico
Hong Kong	South Africa
Hungary	Türkiye

Tanker Foundation, India for the IT and Secretariat support

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